ORE FOR INFRASTRUCTURE: A CONTRACTUAL MODEL FOR THE OPTIMIZATION OF CHINA'S INVESTMENTS IN THE MINING SECTORS OF AFRICA

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ABSTRACT

This dissertation is the first major systematic study of resource-for-infrastructure (R4I) investment contracts in Africa. It describes the terms and conditions of the R4I investment contracts that Chinese investors have been using in the mining sectors of resource rich countries in Africa since the turn of the century. It then shows – and that is its paramount objective – why African governments should prefer R4I contracts over traditional investment contracts, especially production-sharing agreements (PSA) and turnkey infrastructure projects. R4I contracts are a remarkable departure from traditional foreign direct investment (FDI), unique in mining contract history, innovative and adapted to the particular circumstances of most resource rich countries in Africa.

The dissertation investigates ways in which resource rich countries in Africa can frame their mining contracts so that they can maximize infrastructure investments while minimizing the risks and costs associated with China's FDI in the mining sectors of

Africa. It proposes R4I investment contracts as a model for taking the greatest advantage of China's mining investments in Africa. The basic mechanism is the exchange of natural resources for national infrastructure through the innovative combination of two different types of traditional investment contracts, namely a resource (minerals or hydrocarbons) contract and an infrastructure contract. China gets the resources; the host state in Africa the infrastructure.

The dissertation's main argument is that the ways in which R4I contracts combine mining contracts and infrastructure projects offers FDI benefits greater than those provided by the mere sum of these two contract types. R4I contracts increase infrastructure investments exponentially by drastically reducing transaction costs. As a consequence, most countries that entered into R4I contracts attracted their largest infrastructure finance in recent years, if not since independence, even if such substantial finance does not come without its own package of risks. With the discourse on China's FDI in African mines shaped largely by insights from political science, economics and development theories, the present dissertation fills a gaping hole in that fast burgeoning Sino-African economic scholarship by approaching the issue from the perspective of contract law.

BIOGRAPHICAL SKETCH

Mr. Dunia Prince Zongwe was born and raised in Lubumbashi in the Democratic Republic of the Congo (DRC), formerly known as Zaïre. He studied law and earned his LL.B. (*cum laude*) from the University of Namibia in 2006 and his LL.M. from Cornell Law School in 2008. As an LL.M. student, he concentrated on international business law and completed, with a honors grade, a thesis on the relationship between mining and human rights in the DRC.

Mr. Zongwe received several merit scholarships and awards, including the Cornell Institute for African Development fellowship, the Law Society of Namibia Prize for Best LL.B. Student, the University of Namibia Vice-Chancellor's Medal, and a foreign clerkship at the South African Constitutional Court. In 2004, he was granted a British exchange student scholarship to study for two terms at the School of Oriental and African Studies (SOAS) in England where he had to compare the legal systems of Namibia and China.

He held several research assistant positions at Cornell Law School, at the University of Namibia, and the London Institute for Advanced Legal Studies. Between 2007 and 2010, he did some legal work on Congolese law for Oxford University Press (*International Law in Domestic Courts*) and New York University (*Globalex*). In 2006, he worked on a country report project (*Incofish*), co-funded by the European Commission, on the legal instruments on sustainable fishing in Namibia. He worked as a student intern at Ithaca City Court, New York, in 2007, and at the University of Namibia legal aid clinic in 2006.

Since 2008, he has presented his research, including his doctoral research, at more than 15 conferences at several universities in different countries, including Yale University in the United States of America, the Université de Montréal in Canada, and the University of Amsterdam in the Netherlands. He publishes in the broad areas of finance and development, and international human rights, with a particular emphasis on Africa.

A native speaker of French, Mr. Zongwe fluently speaks English. He is proficient in Lingala and Swahili. He also learned to read Portuguese and to speak basic Mandarin Chinese. In his free time, he enjoys walking, reading (world history, philosophy and politics), and music.

This dissertation is dedicated to the loving memory of my late mother,

Marguerite Kamin Irung.

All that I have accomplished in life would not have been possible without the love, upbringing and foundation that my mother gave me unconditionally.

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I owe a debt of gratitude to Robert C. Hockett, Muna B. Ndulo, and Chantal Thomas, for their excellent supervision. I am grateful to Muna Ndulo, the chair of my dissertation supervisory committee, for having organized a series of seminars on China's economic relations with Africa in the Fall of 2007 in his capacity as Director of the Cornell Institute for African Development (IAD). The seminars and the foreign investment law class that Ndulo later taught in 2008 while I was still an LL.M. student deeply planted the seeds of what eventually flourished as the doctoral dissertation that I am now presenting. After long reflections on the IAD seminars I came to realize that discussions on Sino-African economic relations did not insist on the perspectives of investment law, still less contract law. The legal literature customarily concentrated on the human rights aspects of those relations.

I am also grateful to Chantal Thomas for her short, sharp and incisive questions and suggestions on the form and substance of my dissertation on various occasions. Thomas posed those questions when I presented my final research proposal in 2009, during an inter-university graduate conference at Cornell Law School the following year, at a lunch with an eminent visiting professor, and after a review of the first draft of the dissertation. Robert Hockett taught me financial institutions and business corporations during an extraordinary period in US and world history, namely the 2008-2009 global financial crisis. I would get the theory in class and as soon hear about how the theory plays out in real life out of class. Hockett's teachings, especially his expertise in law and economics, heavily influenced my research (notwithstanding his strong reservations about value-maximization as a normative meta-principle). To be sure, the central question of my dissertation is informed by law and economics.

I am immensely indebted to Deborah Bräutigam whose keen interest and assistance in my research enriched it more than I could ever ask for. Horace Campbell, Rita K. Edozie and Muna B. Ndulo also assisted me with their insights and sharp criticisms, and by providing me with a platform in their respective universities and institutes on which I could present my research. I thank them for exposing my doctoral research to a much wider audience than the one normally assumed by a dissertation on such a technical subject as investment contracts. Aleksandra W. Gadzala always took the time to read various parts of my research despite the exigency of her own dissertation. Her common sense and research skills were of tremendous help.

Thanks to the assistance of Vivien Foster, my research could not have been made any more manageable. Apart from authoring a report that greatly facilitated the systematic study of R4I contracts, Vivien Foster was accessible and very kind to suffer through my interviews while offering her invaluable inputs and macroeconomic perspectives. I have also contracted large debts from Nils Tcheyan and Elke Rehbock for their willingness to discuss with me the logic, the empirical basis and the ways to prove the dissertation's main argument during the interviews I had with them. Rehbock spent some of her precious time to review parts of the dissertation. I thank her for benevolently sharing her thoughts on my work.

I am thankful to Anida Yupari Aguado, Lucy Corkin, Jeffrey Delmon, Johanna L. Jansson, Jean Paul Kimbulu Kandolo, Sanusha Naidu, Kwabena Nyarko Otoo, David Trubek, Nicolas van de Walle, and Markus Weimer, for their helpful contributions during interviews. I am also thankful to Geraldine M. Geraldo, Vongai Kandiwa, Boris N. Mamlyuk, Mamoudou Gazibo, Vinay Kabadi, Mitchel Lasser, Jeremy Streatfeild, and Octave Kiluba Zongwe, for their suggestions, insightful remarks and constructive criticisms. I would like to acknowledge the contribution of some participants at conferences and seminars where I presented aspects of my doctoral research: At Michigan State University in September 2008 and October 2009, at Yale University in April 2009 and April 2010, at Cornell Law School in October 2009 and April 2010, at the State University of New York at Binghamton in March 2010, at Syracuse University in April 2010, at the Cornell Institute for African Development in September 2010, and at the Université de Montréal in October 2010. I would like to thank the Graduate Legal Studies Committee of Cornell Law School for the generous funding that sustained me while I was in the middle and the throes of researching and writing the dissertation.

Most importantly, I would like to thank the Almighty God for His love and protection. I would also like to thank my family for their support. My nephew Sébastien and my niece Yossi; my sisters: Krystel, Cora, and Baby; my brothers: Isaak and Joe; and my step-mother: Emmanuelle Kafutshi. I am especially indebted to my father, Octave Kiluba Zongwe, for his unrelenting financial and moral support and for providing me with an example for me to emulate. I am also indebted to Mr. Samuel K. Amoo, former Dean of the Faculty of Law at the University of Namibia, for the incommensurable help he gave me at a very critical point of my life and legal education. I am finally grateful to Muna B. Ndulo, another former dean of a faculty of law in Southern Africa, for the guidance he gave me as a lecturer, mentor and friend; and for painstakingly reading through the long-winded and incomprehensible first draft of the dissertation.

Enduring errors are mine, and I remain responsible for the arguments and imperfections in this dissertation.

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LIST OF ABBREVIATIONS

ACGT	Agence Congolaise des Grand Travaux/Congolese Agency for the Great Works
ADC	African Development Corporation
AfDB	African Development Bank
ASB	Alcatel Shanghai Bell
ASEAN	Association of East Asian Nations
ASX	Australian Securities Exchange
AU	African Union
BCPSC	Bureau de Coordination et du Suivi du Programme Sino-Congolais/Bureau of the Coordination and the Monitoring of the Sino-Congolese Program
BIT	bilateral investment treaty
BMF	Brazilian Mercantile and Futures Exchange
Bpd	barrels per day
BRIC	Brazil, Russia, India, China
BT	build-and-transfer immediately infrastructure project
CADF	China-Africa Development Fund
CAR	Central African Republic
CCB	China Construction Bank
CCS	Centre for Chinese Studies
CCPR	Covenant on Civil and Political Rights
CDB	China Development Bank
CDMA	code division multiple access

CEIEC	China National Electronics Import and Export Corporation
CESCR	Covenant on Economic, Social and Cultural Rights
CIA	Central Intelligence Agency
CIC	China Investment Corporation
CIF	China International Fund
CME	Chicago Mercantile Exchange
CNEEC	China National Electric Equipment Corporation
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
CPA	Comprehensive Peace Agreement
CPC	Communist Party of China
CRB	Commodity Research Bureau
CRBC	China Road and Bridge Corporation
CREC	China Railway and Engineering Corporation
DAC	Development Assistance Committee of the Organization for Economic Co-operation and Development
DRC	Democratic Republic of the Congo
ECZ	economic cooperation zone
EIA	environmental impact assessment
EOI	export-oriented industrialization
EPC	engineering, procurement, and construction
EPZ	economic processing zones
FDI	foreign direct investment
FOCAC	Forum on China-Africa Cooperation
GDP	gross domestic product
GSCI	Goldman Sachs Commodity Index

HIPC	heavily indebted poor country
IAD	Institute for African Development at Cornell University
ICBC	Industrial and Commercial Bank of China
ICJ	International Court of Justice
ICT	information and communication technology
ICSID	International Convention on the Settlement of Investment Disputes Between States and Nationals of Other States
IDP	internally displaced person
IFI	international financial institution
IMF	International Monetary Fund
IPO	initial public offering
IRR	internal rate of return
ISI	import-substitution industrialization
LDC	least developed country
LIBOR	London Inter-Bank Offered Rate
M^3/d	cubic meter per day
MIGA	Multilateral Investment Guarantee Agency
MDEX	Bursa Malaysia (i.e. Malaysian commodities exchange)
MOFCOM	Ministry of Commerce of China
MOU	Memorandum of Understanding
NCP	National Congress Party
NGO	non-governmental organization
NIPP	National Integrated Power Project in the Mambilla plateau (Nigeria)
NNPC	Nigerian National Petroleum Corporation
NPC	National People's Congress (China)

NPC	Nigerian People's Congress
NPV	net present value
NYSE	New York Stock Exchange
ODA	official development assistance
OECD	Organization for Economic Co-operation and Development
OMCL	Office for the Technical Support and Management of the Credit Line with Eximbank of China/*Gabinete de Apoio Técnico à Gestão da Linha de Crédito com Eximbank da China*
OPEC	Organization of Petroleum Exporting Countries
OPIC	Overseas Private Investment Corporation
PIRSA	politically insecure and resource rich state(s) in Africa
PLA	People's Liberation Army
PPP	public private partnership
PPP	purchasing power parity
PRC	People's Republic of China
PSA	production sharing agreement
R&I	resource-and-infrastructure
R4I	resource-for-infrastructure
RBOB	reformulated blendstock for oxygenate blending
RFR	right of first refusal
RMB	renminbi
ROI	return on investment
S&P	Standard & Poors
SEZ	special economic zone
SINOPEC	China National Petrochemical Corporation
SME	small and medium enterprise

SOE	state-owned enterprise
SPLM	Sudan's People's Liberation Movement
SPV	special purpose vehicle
SSE	Shanghai Stock Exchange
UK	United Kingdom
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
US	United States of America
USSR	Union of Soviet Socialist Republics
VAT	value-added tax
WTI	West Texas International
WTO	World Trade Organization
ZTE	Zhong Xing Telecommunication Equipments Company Limited

PREFACE

Taken together, the chapters of this dissertation aim at proposing R4I investment contracts as a model for countries affected by the resource curse to take the maximum advantage of China's FDI in the mining sectors. This aim requires showing that R4I contracts benefit resource rich countries in Africa more than traditional investment contracts, like PSAs and turnkey infrastructure projects. The beginning of the 21th century has coincided with the manifold increase of China's FDI in Africa, albeit China's contacts with the continent can be traced back to the Middle Ages. The dramatic upsurge of Chinese FDI on the continent is due to China's search for natural resources to feed its fast-growing economy, its desire to diversify its investment portfolio and find new markets. Faced with this rapid expansion of China's finance in Africa, several voices are spurring leaders in Africa on to be pro-active about China's FDI and to develop frameworks in order to leverage this renewed interest in the continent and its enormous potential.

To fulfill its purpose to show that R4I contracts are more beneficial to resource rich countries in Africa than traditional investment contracts, the dissertation delves into specialized fields of law (contract law theory and law-and-economics) and political economy (resource curse theory), the main field being foreign direct investment. The essential question that arose from these theoretical orientations centers on how resource rich countries in Africa can structure the terms of their mining contracts so that they can maximize the building of local infrastructure and avoid excessive waste of their resources. Avoiding waste requires minimizing investment risks and transaction costs. Closely related to the essential question is the issue of the manner in which government delegates of resource rich countries in Africa should negotiate financial terms to optimize the level of infrastructure finance.

A thorough search of the relevant literature does not retrieve any systematic study of the terms of investment contracts or R4I contracts between African countries and China. Information retrieved shows that R4I contracts are distinguishable by their formal, financial and distributive structures. At the same time, the literature does not scrutinize the terms of R4I contracts, assess their comparative advantages, propose or oppose them as a model for investment in the mining sectors of Africa, or hold out any model that factors in the general political economy of resource rich states in Africa. All these are shortcomings that this dissertation seeks to cure.

However, R4I contracts entail a number of investment risks. Chief among those risks, is the risk of unsustainable debt. The very large amounts of money that R4I contracts often represent are sometimes out of proportion relative to the size of the economy or the budget of the host governments in Africa, which indicates a risk of unsustainable debt. That risk is made more likely by the fact that the larger the debt the greater the risk of default. Other risks include the risk that the selection of the infrastructure projects to be built may be inefficient or excessively costly, environmental degradation, expropriation or displacement of local inhabitants. In addition, the political economy of resource rich countries creates considerable political risks, notably the risk of expropriating investors' property rights. Having said that, R4I contracts are a new contractual phenomenon. Their actual and potential costs and benefits have not been fully explored. The months and years that lie ahead will be rich in lessons as to the challenges and transformative potential of R4I contracts.

The necessity of elaborating a contractual response to China's swelling FDI is vitally strategic for resource rich countries in Africa. If those countries fail to organize their contractual response to Chinese FDI, they may fail to turn Chinese massive financial flows to the continent to their own greatest advantage. The literature on China's FDI in the mining sectors of Africa is conspicuous by the absence of a systematic contractual approach. It is this absence that this dissertation has filled up, and filling that gap is the fundamental significance of the dissertation.

The absence of a systematic contractual approach to Chinese FDI in the mining sectors of Africa is surprising because contract law regulates the transfer of private property, and thereby wealth, in society. Any study serious about ways and means of influencing the distributive outcomes of FDI can ill-afford to ignore a contractual approach. Distributive preoccupations are key to the question whether or not African states and their people can optimize China's FDI in general and in their mining sectors. Resource rich countries in Africa will not get the best value for their natural resources if they do not put a strong emphasis on contracts and contract law. Contracts reduce the costs of transactions and negative externalities.

The central thesis of this dissertation is that the combined use of a mining contract and an infrastructure project – which is what R4I contracts basically boil down to – offers greater FDI benefits than the simple use of these two investment contract types separately. By combining mining or oil with infrastructure, R4I contracts attract drastically more capital needed for infrastructure development. The implicit assumption here is that combining a modestly profitable project (i.e. infrastructure) with a very lucrative contract (i.e. mining or oil), a host state attracts more foreign investors or greater FDI than if it had offered the not-so-profitable project alone to investors. It is in that crucial respect that R4I contracts benefit resource rich countries in Africa more than traditional investment contracts.

The crux of the dissertation's main argument is the final conclusion of a certain number of important logical steps. First, Chapter 3 emphasizes the characteristics of Chinese FDI in Africa and the manner in which the terms of R4I contracts capture this FDI and maximize the benefits it brings on. Second, Chapter 4 explains that macroeconomic fundamentals shape the economic exchanges between resource rich countries in Africa and China, and structures R4I contracts. Even if the majority of countries in Africa are resource rich they cruelly lack vital infrastructure, a fact that creates bottlenecks preventing their economies to reach their full potential. China, on the other hand, is not so richly endowed with natural resources but it boasts one of the world's most competitive construction industries. R4I contracts make these macro-economic conditions complementary by providing for the exports of the host country's natural resources to China in exchange for China's construction of local infrastructure in the host country. The task of Chapter 5 is to discuss the risks and factors that may increase foreign investors' costs of doing business in most resource rich countries in Africa and to identify the terms of R4I contracts that minimize these costs. Chapter 6 and 7 scrutinize the terms of R4I contracts, compare them with ordinary investment contracts and conclude that R4I contracts maximize the benefits of Chinese mining FDI and minimize transaction costs better than ordinary investment contracts. Ordinary investment contracts do respond to Sino-African economic complementarities but not nearly as completely as R4I contracts.

The chapter immediately following the dissertation's introduction is a preliminary discussion of basic concepts and investment contracts. It first elaborates on various understanding of 'contract' and succinctly describes the major types of investment contracts. After explaining the instrumentality of contracts in organizing FDI and business transactions, the chapter finds the intention of contracting parties, the purposes of FDI law and economic efficiency as criteria for the evaluation of the clauses that constitute the contractual model proposed in this dissertation. The contribution of the preliminary chapter (i.e. Chapter 2) is that it articulates the contract law perspective to China's FDI in the mining sectors of Africa. In doing so, it sets the scene for the dissertation's main argument. The four salient features of Chapter 2 are the dissertation's particular conceptualization of contract as the terms of an economic exchange, the explanation of a contract law perspective on China's FDI in Africa's mines, the typology of the most common investment contracts, and the criteria for clause selection and contract comparison. From these criteria, economic efficiency is by virtue of the dissertation's methodology the most determinative. It follows that the cost-benefit analysis is the best tool that the dissertation has at hand.

The third chapter explains the key characteristics of China's FDI in Africa, especially China's investments in the mining sectors of Africa. It starts by elaborating on the oft-touted South-South cooperation, which provides context and content to China's FDI in Africa. It then gives an overview of China's economic policies and reasons for investing in Africa. The most important part of the chapter describes the ordinary and distinctive features of China's FDI in Africa. The key features of China's FDI in Africa could be summarized as 'summit diplomacy, equality, co-development and cooperation.' Other key features are the concentration on resource extraction, the presence of state-owned corporations, joint ventures as a strategy to create mutual benefits, and the state-to-state business model. Understanding the features of China's FDI in Africa enables the tailoring of R4I contract terms so as to make them suitable to

China’s FDI. Contrariwise, understanding the terms of R4I contracts requires policy makers in Africa to fully grasp the peculiarities of China’s FDI in Africa. This grasp is necessary because of the reflection of some general economic patterns of Chinese investments in the terms of R4I contracts. The terms of R4I contracts not only reflect the patterns of Chinese investments but they also attempt to make the most of those investments.

Chapter 4 discusses China’s growth, the strategic value of mineral resources in international business, infrastructure development and significant growth opportunities for countries in Africa. Evident complementarities exist between African and Chinese economies. China needs natural resources and offers its services to Africa through China’s globally competitive construction sector while Africa needs infrastructure and offers its natural resources to China in exchange for infrastructure development. R4I investment contracts only translate these complementarities in a contractual form. The significance of Chapter 3 lay in the fact that its argument is the minor premise of the dissertation’s central thesis. To support the dissertation’s main argument, it is necessary to establish how R4I contracts realize Sino-African economic complementarities. The chapter establishes those complementarities by presenting the intersectoral complementarities that China’s FDI creates in mining and infrastructure in resource rich countries in Africa and how R4I contracts best encapsulate these economic affinities. The vibrancy of the Chinese economy has re-vitalized mining sectors as scaling up infrastructure finance on the continent, the world’s most endowed with natural resources. Today, China is the continent’s foremost infrastructure financier. R4I contracts channel both mining and infrastructure investments, and for that reason they capture best economic complementarities between China’s demand for primary commodities and Africa’s demand for national infrastructure.

Chapter 5 is concerned with showing how China's FDI and South-South investment cooperation unfold in environments in Africa overshadowed by the resource curse. These political and economic environments thrust up transaction costs. After providing a background on risk in investment law and in general, the chapter addresses the heterogeneity, the nature and specificity of politically insecure and resource-rich states in Africa (PIRSA). It concluded that the resource-outcome causal relationship is moderated by several third variables, making it difficult to draw any conclusion as to causality in that multivariate relationship. It is for that reason that this dissertation utilizes the resource-outcome relationship as a *simple association* that indicates the kinds of risks that foreign investors run and the kind of factors that might preclude investment contracts from achieving their goals in resource rich countries in Africa. It is that revisited version of the resource curse that the dissertation has endogenized in its R4I model to make it one of its major assumptions. The terms of R4I contracts and foreign investment law strive to bring down transaction costs.

The core argument of the dissertation is set out in Chapter 6 and Chapter 7. Chapter 6 dissects the terms of R4I contracts, searching for systematic patterns. It finds that R4I investment contracts can be seen as a mining contract, as an infrastructure contract, or as both, even if they are not the mere addition of a mining and an infrastructure contract. It then argues that in reality the R4I contract model is a hybrid, a combination – and not the simple sum – of PSAs and turnkey projects. It reaches that argument by comparing R4I contracts with ordinary investment contracts in mining and infrastructure. The chapter explores, using efficiency as an analytical lens, the terms of R4I contracts. Its main argument is that the innovative combination of a mining or oil contract and an infrastructure project yields greater benefits for resource rich countries in Africa than the mere sum of the contract and the project. The greater benefits are the larger infrastructure finance that resource rich countries can attract with R4I contracts and the substantial reduction in transaction costs that R4I contracts are capable of achieving. For those principal reasons, resource rich countries in Africa should adopt the R4I model, as outlined in Chapter 7, if they desire to leverage China's FDI to address the infrastructure deficit that puts a brake on their economic growth and development.

CHAPTER 1

INTRODUCTION

1. Research objective

The principal purpose of the present research is to propose resource-for-infrastructure (R4I)[1] investment contracts as a model for optimizing China's investments in the mining sectors of resource rich countries in Africa. Put another way, the purpose of this dissertation is to demonstrate how, if at all, R4I contracts benefit resource rich African states more than traditional mining investment contracts. R4I contracts combine a

[1] The author is indebted to Vongai Kandiwa for suggesting this shorthand for resource-for-infrastructure investment contracts.

mining or oil contract and an infrastructure project in order to extract minerals or hydrocarbons and to pay for major infrastructure projects with revenues generated from the extractive activities.

In this dissertation, the concepts of 'demonstration' and 'proof' are interchangeable and carry with them the same semantic and methodological implications. To 'demonstrate' or to 'prove' means, in this dissertation, to 'show by evidence and argument that something is true or exists.'[2] In light of this definition, the purpose of the present research is therefore to show by evidence and argument that R4I contracts are more beneficial to PIRSA than traditional mining investment contracts.

2. Background

Since the turn of the century, a great many countries in Africa witnessed a growth in foreign direct investment (FDI) from China that is little short of breathtaking. Statistics on China's FDI in Africa vary: China's Ministry of Commerce estimates that Chinese FDI in 2000-2006 totaled 6.6 billion US dollars[3] whereas the National Bureau of Statistics[4] published lower estimates for the same period. An expert from the Chinese Academy of Social Sciences situated the exact amount of accumulated Chinese investments in Africa at 11.7 billion US dollars by the end of 2006.[5]

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[2] OXFORD DICTIONARY OF CURRENT ENGLISH 724 (4th ed. 2006), sv 'prove': 'show by evidence or argument that something is true or exists.'

[3] Jian-Ye Wang, What Drives China's Growing Role in Africa? (International Monetary Fund, Working Paper No. 07/211 October 2007), *available at* http://www.imf.org/external/pubs/ft/wp/2007/wp07211.pdf.

[4] The variety of statistics is complicated by the alleged unreliability and inaccuracy of China's National Bureau of Statistics, as suggested by Jamil Anderlini, *China's Growth Figures Fail to Add Up,* FIN. TIMES (U.K.) Aug. 4, 2009.

[5] Yang Guang, Director of the Institute of West Asian and African Studies at the Chinese Academy of Social Sciences, as quoted by Stephanie Hanson, *China: A Helping Hand*, NEWSWEEK, Nov. 29, 2007, *available at* http://www.newsweek.com/id/72924.

Nevertheless, official Chinese sources appear to underestimate the magnitude of Chinese FDI in Africa. Data from other sources, including some United Nations (UN) sources, reveal significantly higher amounts.[6] The UN Conference on Trade and Development (UNCTAD) indicates that, before the global financial meltdown, FDI inflows to Africa increased from 2.4 billion US dollars in 1985 to 87.6 billion US dollars in 2008.[7] Whatever the official statistics may be, China's actual FDI in Africa could well be larger than what figures in financial reports suggest.

China's presence on the African continent, which dates back to the Middle Ages,[8] has been rapidly deepening and widening in recent years. The defining moment of these reinvigorated Sino-African economic relations is the two-day trade and investment Beijing Summit in November 2006 that hosted 48 African heads of states and foreign ministers. At the Summit, Chinese President Hu Jintao promised to propose 5 billion US dollars in the form of loans and credit and to double aid to Africa in 2009 – promises on which China delivered.

One of the reasons for China's investments in Africa is to find natural resources and raw materials to feed its growing economy. China also seeks, holding around 2.1

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[6] *See* Jian-Ye, *supra* note 3, at 11 (showing that a conservative estimate of China's investments in Africa, based on data from UN and other sources, produces significantly higher figures).
[7] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), ECONOMIC DEVELOPMENT IN AFRICA REPORT 2010: SOUTH-SOUTH COOPERATION: AFRICA AND THE NEW FORMS OF DEVELOPMENT PARTNERSHIP 79 (United Nations 2010). [hereinafter UNCTAD, SOUTH-SOUTH COOPERATION].
[8] Gao Jinyan, *China and Africa: The Development of Relations Over Many Centuries,* 83 AFR. AFF. 241, 241 (1984). In fact, historians do not agree as to the exact time when China began contact with Africa. Although China started to build strong and durable relations with Africa in the 1950s (Adama Gaye, *La Chine en Afrique Inquiète l'Occident*, NEW AFR. June – August 2008, 8), some authors situate China's earliest contacts with Africa around the 10th and 11th centuries (JOHN READER, AFRICA: A BIOGRAPHY OF THE CONTINENT 328-29 (Hamish Hamilton Ltd. 1997)).

trillion US dollars in foreign exchange reserves,[9] to diversify risks in the face of a weakening dollar, low interest rates and an expansionary fiscal policy in the United States (US) following the financial crisis that started in December 2007.[10] The support of the Chinese central government[11] and the dynamic financial mattress provided by Chinese state-backed banks, especially the Export Import Bank of China (China Eximbank), have facilitated the dramatic surge of China's FDI in the mining sectors of Africa.[12]

There is an emerging consensus among experts on Sino-African economic relations that, if they are to benefit from China's FDI, countries in Africa need to devise, each and as a whole, an appropriate policy response. Given the pivotal economic roles of contracts, policy responses to China's FDI must feature contract law. At their most basic, contracts are the terms of economic *exchanges*, with stipulated distributive patrimonial consequences. African governments can utilize contracts to optimize China's FDI.

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[9] Richard McGregor, *China's Forex Reserves Pass $2,000 Mark*, FIN. TIMES (U.K.), Jul. 15, 2009 (reporting that foreign exchange reserves in China reached 2.132 billion US dollars); Peter Garnham, *Dollar Falls As China Reveals Record Stockpiles*, FIN. TIMES (U.K.), Jul. 14, 2009 (stating that analysts estimate that 65% to 70% of China's foreign exchange reserves are in US dollars and the rest in other currencies).

[10] In 2008, China was the world's largest creditor of the US as it was the largest holder of US public debt: *See* Anthony Faiola & Zachary A. Goldfarb, *China Tops Japan U.S. Debt Holdings*, WASHINGTON POST, Nov. 19, 2008, at DO1 (stating that the growing dependence of the U.S. on Chinese cash is granting Beijing extraordinary sway over the U.S. economy); Anthony Faiola, *China Worried About U.S. Debt*, WASHINGTON POST, Mar. 14, 2009 (reporting that China's concern that the U.S. loose fiscal policy is endangering its 1 trillion U.S. dollars holding of U.S. debt).

[11] CHRIS ALDEN *ET AL.*, CHINA RETURNS TO AFRICA: A RISING POWER AND A CONTINENT EMBRACE 7 (Columbia University Press 2008).

[12] *Id.* 16.

3. Theoretical framework

This dissertation draws on specialized fields of law (contract law theory, and law-and-economics) and political economy (resource curse theory) to find an explanatory framework for its main aim, which is to prove that R4I investment contracts are a superior contract form for optimizing China's FDI in Africa. Because R4I investment contracts are the object of this research, contracts and contract law theories are the obvious launching pads for the search of a fitting explanatory framework.

3.1. Contracts as the terms of economic exchanges

The answer to the question as to what acts or facts constitute a 'contract' varies within a legal system and from one legal system to the other. In Africa's rural areas, where the majority of Africans live, the way people envision formal agreements conflicts to some degree with Western conceptions of contracts, which nearly all states in Africa have incorporated in their laws for historical reasons.

The infinite variety of contracts and contract forms forces this dissertation to define contracts from an economic perspective. The dissertation refers to a contract as the terms of economic *exchanges*, with stipulated patrimonial consequences. This definition goes around the diversity of legal systems and legal definitions of contracts. It simplifies the analysis of the concept of 'contract' and enables the dissertation to build a contractual model that can be adapted, with the necessary adjustments, to any legal system.

A central tenet of the conception of contracts as the terms of economic exchanges is the recognition that contracts are essentially exchanges that emerge from interactions between parties. This dissertation focuses on a particular sort of interactions between parties, namely commercial contracts. As explained later in the dissertation, the view of contracts as terms of economic exchanges is both analytic and normative, and provides a more rounded account of contracts than alternative theories of contract.

3.2. Resource curse

Though China's FDI in Africa concentrates on all resource rich countries, this dissertation primarily focuses on politically insecure and resource rich states in Africa (PIRSA), which are defined in terms of their being affected by the 'resource curse'. No uniform, normative or legal definition exists for 'resource curse.' However, it is not necessary to reach a consensus on the contents and contours of the resource curse. It is sufficient, for the nonce, to understand that phrase as referring to a seeming paradox, a paradox of plenty[13] or the inverse relationship between the abundance of natural resources, on the one hand, and economic growth, stability and human development, on the other.[14] PIRSA states thus require more and higher scrutiny because they carry the risk of not developing, despite the unprecedented surge of China's FDI.

To conceptualize the set of investment risks and the transaction costs that foreign investors run and may incur in most resource rich host countries in Africa, the resource curse theory is useful. Richard Auty was the first in 1993 to come up with the proposition that countries rich in natural resources did not use that wealth to benefit their citizens and experienced slower economic growth than countries without mineral wealth.[15] However, it was not until 2001 that the main evidence of the resource curse

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[13] The phrase 'paradox of plenty' was made famous by TERRY LYNN KARL. THE PARADOX OF PLENTY: OIL BOOMS AND PETRO-STATES (University of California Press 1997).
[14] The definition of 'resource curse' is further discussed in Chapter 5 of this dissertation.
[15] RICHARD M. AUTY, SUSTAINING DEVELOPMENT IN MINERAL ECONOMIES: THE RESOURCE CURSE THESIS (Routledge 1993).

was adduced by Sachs & Warner.[16] The resource curse theory provides the dissertation with a readily available knowledge and evidentiary base so that it is unnecessary to re-establish the existence of the political, economic situation that fosters the risks that foreign investors are likely to encounter in the mining sectors of PIRSA.

An important methodological implication derived from the resource curse theory is that the heightened risks of investing in some mining sectors are located in the political economy of the host countries. Consideration of the political economy of host countries allows a complete understanding of the complexities surrounding FDIs in the extractive industries of most resource rich developing countries. A study of China's FDI in African mines, which solely includes FDI legal methodologies, would paint only an incomplete picture of the risks and returns of such FDI. It is therefore imperative that this dissertation be situated in the resource curse discourse because it provides a useful body of knowledge and evidence, and derives insights from political economy as an academic discipline.

4. Research problem

The central research question is: *How should resource rich countries in Africa frame the clauses of mining contracts with Chinese investors so as to maximize the construction of local infrastructure and avoid the risks of such mining and infrastructure investments?* The reverse side of this question is: How can R4I contracts help turn PIRSA or resource cursed countries into developing, resource blessed nations?

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[16] Jeffrey D. Sachs & Andrew M. Warner, *The Curse of Natural Resources*, 45 EUR. ECON. REV. 827 (2001).

The key verb is 'optimize'. PIRSA need to optimize China's mining investments, that is to say that they must *maximize* the *benefits* of, and *minimize* the *costs* and *risks* associated with, the mining investments. One such benefit, crucial to any country's growth and competitiveness, is infrastructure, whether social or mining. Africa counts among its development challenges a major infrastructure deficit, with FDI needs estimated at 93 billion US dollars annually and a funding gap on the order of 31 billion US dollars annually.[17]

At its broadest, the term 'risk' refers to the probability of permanent loss of assets. In FDI law, it refers to the probability of permanent loss of assets belonging to either foreign investors or host countries, or both, especially as a result of political instability. Risks are present at various levels: At the global, country, industry and firm levels. But FDI law and this dissertation are primarily interested in country-level risks. Regarding 'costs', perhaps the best way to think of 'cost' is as the reverse side of 'price'.[18] Stated differently, cost and price are two sides of the same coin. It is noteworthy, however, that the economic concept of 'price' in law is not necessarily synonymous with 'money' and often entail nonpecuniary costs.[19]

The notion of benefit, cost and risk are interpenetrating and interdependent. If benefits exceed costs, the net result is a profit, that is an efficient outcome. If conversely costs exceed benefit, the net result is a loss, an inefficient outcome. In the economic analysis

[17] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., AFRICA'S INFRASTRUCTURE: A TIME FOR TRANSFORMATION 1, 8 (World Bank 2010).
[18] It is instructive that the definitions of 'cost' and 'price' in OXFORD DICTIONARY OF CURRENT ENGLISH 197, 712 (4th ed. 2006) are almost synonymous. That dictionary defines 'cost' as 'an amount given or required as payment' and 'price' as 'the amount of money for which something is bought or sold'.
[19] JEFFREY L. HARRISON & JULES THEEUWES, LAW AND ECONOMICS 31 (W.W. Norton & Company 2008).

of the law, the purpose of a legal system is to avoid losses or excessive costs and the *risk* of losses. It is this concern with avoiding losses and augmenting profits that explains why, in an efficient contract law setting, the risk of loss is borne by the contracting party who can carry it at a cheaper price.[20] As these basic notions amply show, law and economics can be seen as the application of economic theory – especially microeconomics and welfare economics – to examine the formation, structure, processes and economic impact of contracts.[21]

Risks inhere in FDI and investment contracts because the long-term nature of the economic exchanges they regulate involve almost invariably risks of losses. It therefore follows from the foregoing that, in order to optimize China's FDI in the mining sectors of Africa, R4I contracts must maximize benefits (i.e. infrastructural works), reduce prices down to efficient levels and put the risk of losses on the shoulders of the contracting party who can insure against it the most cheaply.

The research also answers the following two critical questions. First, to what extent, if at all, can investment contracts structure commercial transactions and, more precisely, China's FDI in the mining sectors of PIRSA? This question canvasses the resource curse, the costs and the investment risks that may keep investment contracts from being enforced according to the intentions of the contracting parties. Contract breaches, expropriations, confiscations, restrictions on currency exchanges, political violence,[22]

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[20] On the risk-shifting function of contracts, *see* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 105ff (Aspen Publishers 2007).

[21] *See* NICHOLAS MERCURO & STEVEN G. MEDEMA, ECONOMICS AND THE LAW: FROM POSNER TO POST-MODERNISM AND BEYOND 1 (Princeton University Press 2006).

[22] *See* PAUL E. COMEAUX & N. STEPHAN KINSELLA, PROTECTING FOREIGN INVESTMENT UNDER INTERNATIONAL LAW: LEGAL ASPECTS OF POLITICAL RISK 3ff (Oceana Publications Inc. 1997).

are among the factors that may undermine the proper enforcement of investment contracts.

The second critical question is: How should PIRSA draft the financing terms of R4I contracts to ensure the maximization of infrastructure investments in their respective countries? The financial arrangements woven through R4I contracts have attracted the most attention. This is not surprising given that China's finance is vertiginously soaring and 'on a scale large enough to make a material contribution toward meeting Africa's vast infrastructure needs.'[23] The financial aspects of R4I contracts are pivotal as they furnish the dissertation with one of its core arguments, namely that R4I contracts have grown infrastructure finance by leaps and bounds and substantially cut the cost of capital down.

5. Survey of the investment law scholarship

5.1. Gaps in the scholarship

A cursory survey of the existing legal scholarship on China's FDI in developing countries shows that, whereas most studies examine investment from and to China, very few touch on the terms of investment contracts, not to mention R4I contracts, between African countries and China.

Wallace and others (1996) are an ideal point of departure for a review of the legal scholarship on the terms of mining investment contracts in Africa. These authors lay

[23] VIVIEN FOSTER ET AL., BUILDING BRIDGES: CHINA'S GROWING ROLE AS INFRASTRUCTURE FINANCIER FOR AFRICA 2 (The World Bank 2009).

out the model clauses of a traditional foreign investment 'contract',[24] which they group as follows: (1) Investment eligibility, (2) government authority, (3) obligations of parties and benefits of investors, (4) foreign exchange and investment protection, and (5) dispute resolution. An analysis of these model clauses establishes that R4I contracts, while building on traditional mining investment contracts, are original in at least two respects: Structure and finance.

First, R4I contracts exhibit unique structural clauses, which Edinger & Jansson (2008) wrongly describe as 'barter trade agreement'.[25] While Davies (2008) sums up these structural clauses as a 'combination of both aid and private sector commerce models', these clauses are, in their essential form, reminiscent of the *contrat d'échange* (exchange contract) found in civil law jurisdictions.[26] Second, Foster and others (2009) observe that China's finance is sizeable, a clear indication that these financial clauses can maximize the benefits of China's FDI. The host countries in Africa that signed up for R4I contracts benefited from very large infrastructure loans, if not the largest since their respective independence. Nevertheless, Foster and others caution that, in the context of debt relief initiatives, Chinese lending to PIRSA (like Sudan and Zimbabwe) have raised interrogating eyebrows as these loans fan uneasiness about debt sustainability.[27]

[24] DON WALLACE JR. ET AL., MODEL FOREIGN INVESTMENT LAW WITH ANNOTATIONS (International Law Institute 1996). Although it presents a model law, rather than a model contract, the book expressly states at p.11 that the model law adopts a contractual approach to foreign investment.
[25] Hannah Edinger & Johanna Jansson, *China's Angola Model Comes to the DRC,* THE CHINA MONITOR (S. Afr.), Oct. 2008, at p.8.
[26] *See* FRÉDÉRIC LECLERC, DROIT DES CONTRATS SPÉCIAUX 188 (Librairie Générale de Droit et de Jurisprudence 2007).
[27] *See* VIVIEN FOSTER *ET AL.*, *supra* note 23, at 7.

The greatest and most patent handicap arising from the review of the existing investment law scholarship, even patched together, is that there is no treatise that formally and systematically addresses the contractual clauses that African countries may utilize to leverage China's FDI. More specifically, the legal scholarship on China's FDI in developing countries is limited in that virtually no studies (1) dissect the nature of R4I contracts, (2) measure the competitiveness of R4I contracts[28] or (3) propose the R4I contract form as a model for investment in the mining sectors of Africa, (4) build a contractual model that seeks to optimize China's mining investments in Africa, and (5) a model that speaks to the context-specific incidence of the resource curse on resource rich African states.

This dissertation is an attempt at plugging the five gaps identified above in the investment law scholarship. In the non-legal literature, the *Thirst for African Oil* report by Chatham House specially examines the use of 'oil-for-infrastructure' or 'Angola mode' in Angola and Nigeria.[29] While the *Thirst for African Oil* report specifically focuses on R4I contracts, this dissertation exposes the poor understanding of the concept of 'contract' on which the report's description of R4I contracts rests.[30]

The present research differs from previous research because of its different entry and exit points, its unique focal points, and its methodology. Firstly, this dissertation enters the debate by concentrating, using the language of investment law, on the *responses*,

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[28] One possible exception is Dunia Zongwe, *The Competitive Edges of China's Resource-for-Infrastructure Investment Contracts in Africa,* 2 PEKING UNIVERSITY JOURNAL OF LEGAL STUDIES 227 (2010). On closer scrutiny, however, that article is actually not an exception to the gaps identified in the legal literature on Chinese FDI in developing countries because it is a part of the present dissertation and was published while the author was working on this dissertation.
[29] ALEX VINES *ET AL.*, THIRST FOR AFRICAN OIL: ASIAN NATIONAL OIL COMPANIES IN NIGERIA AND ANGOLA vii (Chatham House 2009).
[30] *See* Chapter 6.

with respect to the extractive industries, of African governments in order to increase China's FDI in their respective countries. This is different from previous research, which enters the debate by concentrating, using the language of human rights, on the *impacts* of China's FDI in order to denounce China's FDI.[31] This difference can be graphically represented as follows:

Table 1: Bridging the gaps identified in the literature survey

	ENTRY POINT				**EXIT POINT**
	Principal Concern	**Subjects**	**Objects**	**Methodology**	**Ultimate purpose**
Previous Research	Impacts	of China's	Investments	using human rights language	to denounce China's investments
Proposed Research	Responses	of African governments	with respect to extractive industries	using investment law language	to increase China's investments

Secondly, this dissertation differs from previous studies because of its intersection of focuses on (the terms of) R4I contracts and the resource curse. Lastly, the dissertation opts for model building as its methodology to achieve its main purpose.

5.2. Human rights

This dissertation does not use human rights law as its methodology to study the responses of governments to Chinese FDI in the mining sectors of Africa. The emphasis is instead on investment law, much as the dissertation acknowledges that human rights and moral considerations are relevant to foreign investment law. Indian

[31] *See* e.g. Patrick J. Keenan, *Curse or Cure? China, Africa, and the Effects of Unconditioned Wealth*, 27 BERKELEY J. INT'L L. 83 (2009); Randall Peerenboom *The Fire-Breathing Dragon and the Cute, Cuddly Panda: The Implication of China's Rise for Developing Countries, Human Rights and Geopolitical Stability*, 7 CHI. J. INT'L L. 17 (2006); THE ALLARD K. LOWENSTEIN INTERNATIONAL HUMAN RIGHTS CLINIC & THE ALLARD K. LOWENSTEIN INTERNATIONAL HUMAN RIGHTS PROJECT, FOREIGN INVESTMENT AND GENOCIDE (Yale Law School 2005), *available at* http://acir.yale.edu/pdf/YaleLowensteinSudanReport.pdf.

economist Amartya Sen's stance that sustainable development cannot be simplistically disentangled from political liberties has imbued with a human rights dimension[32] a field that for a long time drew apart aggregate gains from moral and distributive issues.[33] With regard to R4I contracts, human rights intermesh with foreign direct investment in three other respects. The construction of national infrastructure goes a long way in promoting socio-economic rights[34] while the 'social clauses' of R4I contracts target the fulfillment of certain socio-economic rights. Thirdly, the extractive activities of mining or oil firms in terms of R4I contracts may engage their liability for the displacement of local populations, expropriation of property or other human rights violations. Aggrieved parties could, after exhausting remedies in domestic courts, commence legal action against the liable corporations in US courts thanks to the provisions of the Alien Tort Claims Act.[35]

Though intersecting at various points, human rights and foreign direct investment are analytically separate and practically distinguishable. This clarification is in order as critics have complained that the 'hegemony' of human rights in the literature on economic development has clouded analysis and distorted the way projects are framed and imagined.[36] It thus bears reminding, for the sake of clarity, that this dissertation's principal field of analysis is foreign investment, and human rights only come into the picture peripherally insofar as it directly pertains to R4I contracts.

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[32] AMARTYA SEN, DEVELOPMENT AS FREEDOM (Anchor 2000).
[33] RICHARD O. ZERBE JR. ECONOMIC EFFICIENCY IN LAW AND ECONOMICS 5 (Edward Elgar 2001).
[34] *Social and Economic Rights Centre Action Centre (SERAC) and Another v. Nigeria* (2001) AHRLR 60 (ACHPR 2001) ¶ 46 [hereinafter *SERAC*] (*held,* the obligation to promote human rights requires the state to ensure individuals exercise their rights by *inter alia* 'building infrastructure'); *Moore and Purohit v The Gambia* Communication no. 24/2001 (2003) ¶ 46 [hereinafter *Moore and Purohit*] (*held,* 'infrastructure and resources…facilitate the full enjoyment' of socio-economic rights).
[35] U.S. Code, vol. 28, sec. 1350.
[36] David Kennedy, *The International Human Rights Movement: Part of the Problem?* 15 HARV. HUM. RTS. J. 101, 108 (2002).

The relationship between foreign investors and host countries is primarily contractual and commercial in nature. The contractual nature of the investor-state relationship implies that the terms of that economic exchange are laid down and varied by mutual agreement of the contracting parties; the relationship between the parties is commercial in the sense that they are pursuing value-maximizing economic objectives, not necessarily the realization of human rights. In a typical mining investment contract, the foreign investor operates as a buyer and the host country as a seller of minerals.

The human rights advocates who fail to distinguish between foreign investment and human rights have found it particularly hard to establish in law the link between China's FDI in Sudan and Zimbabwe, and human rights violations in those two African countries.[37] What is missing from their claims is the fact that the primary responsibility to protect human rights falls on host states, as subjects of international law, not on foreign investors, who are not subjects of international law. Whereas foreign firms may be sued in domestic courts for the rights-violative consequences of their own extractive activities, they are not legally responsible for the human rights violations perpetrated by agents of the host state.

Realizing that China's FDI in African mines is more of a contract law than a human rights issue is not an apology for China's actions vis-à-vis dictatorial regimes, nor is it a disregard for humanity. FDI law is ultimately about improving human welfare and dignity. Infrastructure development promotes and fulfills socio-economic rights, as

[37] Stephen Brown & Chandra L. Sriram, *China's Role in Human Rights Abuses in Africa: Clarifying Issues of Culpability*, *in* CHINA IN AFRICA: TRADE, AID AND INFLUENCE 250 (Robert I. Rotberg ed. 2008)(arguing that there is insufficient evidence to hold China, as a foreign investor, legally responsible for the human rights violations in Sudan and Zimbabwe, although China might bear moral responsibility for human rights violations in those two countries).

shown later in the dissertation.[38] Rather, that realization is a reminder that China's FDI is eminently a commercial matter and that other areas of law, like public international law, are better equipped to address human rights issues.

6. Thesis

After finding that R4I contracts combine traditional mining contracts and infrastructure projects, the dissertation demonstrates how the combination of these two investment contract types offers FDI benefits greater than those provided by the mere sum of a mining contract and an infrastructure project. Unlike the infrastructure sector, mining is very lucrative; it attracts the bulk of FDI to Africa. The central thesis is that, by combining mining and infrastructure, R4I contracts attract more capital needed for infrastructure development. In effect, R4I contracts exponentially increase the level of infrastructure finance. Most countries that entered into R4I contracts attracted their largest infrastructure finance in recent years, if not since independence.

In this combination of investment contract types lies another sharp competitive edge of R4I contracts, which is that they produce better distributive outcomes while tackling certain aspects of the resource curse by strengthening the state. R4I contracts achieve wider distribution thanks to its unique way of accomplishing intersectoral complementarities in construction and mining in Africa, thus extending FDI benefits from the mining to the infrastructure sector. Very significant, R4I contracts serve as a potent tool for host countries to diversify their economy, especially when they are used on a national scale, as is the case with the R4I contracts in Angola and the Democratic Republic of the Congo (DRC).

[38] See '3.4. Infrastructure in Africa' in Chapter 4.

If concluded, R4I contracts would not only stabilize but also maximize FDI in infrastructure, thereby consolidating host states through exponential increases in, if not steady streams of, FDI in physical capacity building. This proposition is premised on the truism that FDI in mining generally occurs independently of macroeconomic variables, investment climate, and the costs of doing business because of the scarcity of the minerals or hydrocarbons involved. By linking infrastructure and mining sectors, R4I contracts link the stable flow of FDI in mining to the flow of FDI in the construction sectors. This linking results in an important reduction of the cost of capital needed for infrastructure projects, which in turn leads to a dramatic increase in infrastructure finance. Traditional mining and infrastructure investment contracts do not yield the same results because they are confined to either resource extraction or infrastructure construction, but not both. This is another way of saying that R4I contracts are more efficient than traditional investment contracts.

Even where both R4I contracts and traditional mining investment contracts provide for similar advantages, R4I contracts outcompete traditional mining investment contracts in a number of other ways. The body of the dissertation expounds on how R4I contracts are more adapted to the financial circumstances of African countries and less sensitive to their creditworthiness, they fulfill Sino-African economic complementarities, 'monetize' natural resources and dispense with financial intermediation, and reduce the risk that host governments will embezzle investment money.

However, R4I contracts do not come without their own package of risks. Perhaps, the most important risk associated with R4I contracts is that they might plunge African countries back into a debt crisis. The International Monetary Fund (IMF) raised that argument to sway the DRC to renegotiate its R4I contract with China from 9 to 6 billion US dollars in 2009. Other important risks include probabilities that non-economic considerations may determine the selection and location of infrastructure projects and that the infrastructure to be built may be overpriced, especially because the projects are not awarded following competitive bidding. Environmental degradation and the expropriation and displacement of residents are also non-negligible risks that R4I contracts create in some instances.

The relative novelty of R4I contracts (the first known R4I contract was signed in 2001 in Congo-Brazzaville) means that their actual potential – and their costs and risks – has not yet been fully explored, nor have there been several instances of such contracts. To date, there are only eight known R4I contracts, of which only two have been completed, in Sudan and Angola. Yet the results of the early R4I contracts are promising: the Sino-Angolan contract entered into in 2004 has resulted in, among others, the rehabilitation of the infrastructure (i.e. roads, bridges, houses, schools, hospitals, etc.) bombed during Angola's 1975-2002 civil war and the installation of a fiber optic telecommunication network nationwide. The six other R4I contracts have shown promising infrastructure developments as well.

7. Significance of the research

To reap the fruits of their economic relations with China, African governments must individually and collectively[39] set up or upgrade investment policy and institutional

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[39] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), ASIAN FOREIGN DIRECT INVESTMENT IN AFRICA: TOWARDS A NEW ERA OF COOPERATION AMONG DEVELOPING COUNTRIES 4 (United Nations 2007). [Hereinafter, UNCTAD, ASIAN FDI] (stating that appropriate policies at both national and international levels are necessary to turn the potential of Asian FDI into reality).

frameworks. One expert remarked that, while China has adopted its African Policy, Africa has not yet formulated its Chinese policy.[40] The former President of Botswana, Festus Mogae, noticed that no agenda item from any African Union (AU) meeting before the 2006 China-Africa Summit raised the China-in-Africa subject.[41] African countries went to the Summit with no joint strategy towards China and are crafting individual China policies 'one small step at a time.'[42] Yet whilst the adoption of judicious national policies on Chinese mining and oil investments is easily defensible, the wisdom of designing a continental policy is questionable. Individual governments in Africa will without much doubt find it more convenient to hammer out a R4I deal bilaterally than to approach China with an AU-mandated R4I negotiation framework.

An African expert on Sino-African economic relations have urged African governments to forge a constructive and balanced relationship with China.[43] The cover of Adama Gaye's book *Chine-Afrique: Le Dragon et l'Autruche*[44] (China-Africa: The dragon and the ostrich) is a most vivid imagination of the urge to be proactive[45] vis-à-vis China's FDI. On one side of the book cover, a fire-breathing, fire-spitting blood-red dragon is carrying in her kangaroo-like pouch a Chinese man brandishing bags of products 'made in China' and, on the other side, an ostrich burying her head in the sand instead of facing the dragon.

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[40] Sanusha Naidu, Research Director of the Emerging Powers in Africa Programme at Fahamu, Address at the Symposium 'Africa and China in the 21st Century: The Search for a Mutually Beneficial Relationship' held at the Maxwell School at Syracuse University (Apr. 9, 2010). The author attended the symposium when Ms. Naidu made the remark paraphrased in the text to which this footnote refers.
[41] Festus Mogae, *A New Development Partner: New Opportunities, in* CHINA, AFRICA AND THE AFRICAN DIASPORA: PERSPECTIVES 21, 22 (Sharon T. Freeman 2009).
[42] *Id.*
[43] *See* Adama Gaye, *supra* note 8, at 7.
[44] ADAMA GAYE, CHINE-AFRIQUE: LE DRAGON ET L'AUTRUCHE (L'Harmattan 2006).
[45] For publications on China-Africa relations that explicitly aim at emphasizing the responses or the active role of African governments, *see* KWEKU AMPIAH & SANUSHA NAIDU, CROUCHING TIGER, HIDDEN DRAGON? AFRICA AND CHINA 5 (University of KwaZulu-Natal Press 2008).

As Gaye's book cover hints at, it is the sense in some quarters that China is engaging Africa on new terms, terms that Africa may not fully apprehend, terms that are silently dictated to her by China.[46] The United Nations Conference on Trade and Development (UNCTAD) recommends that African countries mainstream Chinese investments, insofar as it is part of South-South cooperation, into their national development strategies.[47] According to UNCTAD, cooperation with other developing nations like China and India has the potential to enhance Africa's capacity to deal with the challenges of poverty, poor infrastructure, and the development of productive capacity.[48]

Some experts have recommended that African governments shy away from arrangements that threaten sustainable development.[49] Other experts push governments in Africa to shift their current emphasis on the natural resource sector towards secondary and tertiary production.[50] Still others have recommended that governments develop the governance capacity and the investment climate to promote FDI opportunities with China.[51] The present dissertation takes up the investment policy challenge by pleading that PIRSA adopt a specific contractual model with China in their mining sectors.

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[46] *See* e.g. MARTYN DAVIES, HOW CHINA DELIVERS DEVELOPMENT ASSISTANCE TO AFRICA iv (Centre for Chinese Studies, University of Stellenbosch 2008)(stating that China is seemingly engaging Africa on new terms – terms that are not shaped by traditional powers nor perhaps even by Africans themselves).

[47] UNCTAD, SOUTH-SOUTH COOPERATION, *supra* note 7, at 102.

[48] *Id.*

[49] *See* Uche Ewelukwa Ofodile, *Trade, Empires and Subjects – China-Africa Trade: A New Fair Trade Arrangement, or the Third Scramble for Africa?*, 41 VAND. J. TRANSNAT'L L. 505 511 (2008).

[50] KWEKU AMPIAH & SANUSHA NAIDU, *supra* note 45, at 11.

[51] HARRY BROADMAN, AFRICA'S SILK ROAD: CHINA AND INDIA'S NEW ECONOMIC FRONTIER 163 (The World Bank 2007).

The lack of contract law perspectives in the legal scholarship on the issue under examination is a disturbing omission in view of the fact that contracts are in market economies the principal door to economic relations and the circulation of wealth among persons.[52] This is all the more disturbing given that one of the greatest challenges facing African governments that receive Chinese FDI is to build the capacity to negotiate highly sophisticated and innovative multi-million dollar mining deals if these are to benefit African peoples.

It follows from the foregoing that an explanation of the utility of contracts in general is a justification of this dissertation's significance. Contracts perform four major economic functions: They reduce transaction costs, they protect third parties from the external effects of contracts, they control the means that parties used to persuade one another, and they influence distributive outcomes.[53] Given the pivotal economic roles that contracts play, any policy response to China's FDI that would omit to incorporate contract law or recognize China's FDI as a contractual phenomenon would not be meaningful. Jason Yackee is going as far as recommending forgoing bilateral investment treaties (BITs) in favor of a contract-based regime because investors have long had the ability to credibly commit to treat investors fairly through investment contracts.[54]

The significance of the dissertation also rests on its marketing a contractual framework, a set of model clauses, a contractual model for use by PIRSA desiring to optimize China's mining investments. Contractual frameworks may be seen as a sort of standard

[52] JEAN-LUC AUBERT, LE CONTRAT: DROIT DES OBLIGATIONS 4 (Dalloz 2000).
[53] JEFFREY L. HARRISON & JULES THEEUWES, *supra* note 19, at 165ff.
[54] Jason Webb Yackee, *Do We Really Need BITs? Toward a Return to Contract in International Investment Law*, 3 ASIAN J. WTO & INT'L HEALTH L. & POL'Y 121 (2008).

form contract, a blueprint or a 'default' contract-'template' – supplied to government delegates, relieving them of the need to negotiate anew all of the time and all of the terms of contracts. In that way, contractual frameworks or models are efficient. Presumably, most government delegates will alter, permute, tailor, or custom design the terms of these contracts, but without necessarily transforming their underlying structure, which may remain that of the default contract-template, i.e. R4I contracts. This role of contractual models as underlying structure will strengthen the capacity of government delegates from resource rich countries in Africa to negotiate the overall form of their commercial transactions with China and other foreign investors.

8. Research design

The research design opted for in this dissertation is model building.[55] The model that this dissertation builds is attached as an Appendix at the end of the dissertation and is hereinafter referred as the 'R4I Contract Model', the 'R4I Model' or simply the 'Model' (with the first letters of these phrases in capital). Model building is the appropriate design for research that aims at building a new model or refining an existing one. In the process of arguing that R4I contracts are better cut out than traditional mining investment contracts to optimize China's FDI, this dissertation refines an existing contractual model (i.e. R4I contractual model) to respond to a particular contractual phenomenon (i.e. China's FDI in Africa).

The R4I Contract Model is an abstraction from real R4I contracts and a translation of investment policy choices in a contractual form. It is built on the basis of available

[55] This model of analyzing research designs and its lay-out are adapted from JOHANN MOUTON, HOW TO SUCCEED IN YOUR MASTER'S AND DOCTORAL STUDIES: A SOUTH AFRICAN GUIDE AND RESOURCE BOOK 176ff (Van Schaik 2001).

evidence of the terms of existing R4I contracts, especially the DRC-China R4I contract and the Angola-China R4I contract, insofar as the DRC-China R4I contract mirrors the terms of Angola-China R4I contract. It aims to be an optimal form of resource-for-infrastructure investment contracts.

Needless to say that the optimal R4I Model is a purely rational construct that contain some terms that the parties would have agreed upon had they been solely guided by concerns for economic efficiency. However, such construct may deviate from existing R4I contracts because in practice the terms of economic exchanges are often not guided by economic efficiency but by commercial and negotiating strength.[56] Nonetheless, the utility of the R4I Contract Model is that it provides a benchmark for evaluating the existing R4I contracts as well as a sense of direction and accomplishments or failure for government delegates during contract negotiations.

8.1. Classification, key questions and conceptualization

The model building design is (1) empirical, engages in (2) low control (i.e. non-laboratory) research and uses (3) hybrid (primary and secondary), (4) textual and numeric data. The key questions for which it is searching answers involve questions of meaning and explanation as well as questions of linkages and coherence between contractual terms. It also employs a constant comparative method: Between traditional investment contracts and R4I contracts; and between R4I contracts *inter se*.

Building this contractual model occurs through a mix of deductive and inductive strategies. As far as deductive strategies are concerned, a set of legal postulates are

[56] *See* JEFFREY DELMON, PRIVATE SECTOR INVESTMENT IN INFRASTRUCTURE: PROJECT FINANCE, PPP PROJECTS AND RISK 155 (Kluwer Law International 2009).

formulated and taken to be true. In this dissertation, those postulates are key investment policy choices united under the meta-principle of economic efficiency. From these postulates, contractual clauses are deductively derived. Concerning inductive processes, selected clauses of existing R4I contracts are extrapolated and inserted into the R4I Contract Model. The dissertation follows these processes until the comprehensive R4I contractual framework or blueprint, as displayed in the Appendix, is created.

8.2. Strengths and limitations

When applied to the topic of China's FDI in the mining sectors of Africa, the model building design offers some advantages and may suffer from certain setbacks. Regarding its advantages, the design provides a set of statements that aim to respond to China's FDI in the mining sectors of PIRSA as effectively as possible. In addition, models tend to reduce transaction and agency costs, as explained in Chapter 7.

The above strengths notwithstanding, model building designs are ineffective if they make implausible claims on reality, if they make claims that are not testable and vague, or that are conceptually incoherent, inconsistent and confusing. That is why this dissertation tries to steer clear of these pitfalls by basing its essential assertions on solid evidence. In model building, the main sources of error relate to the assumptions postulated (i.e. legal postulates) in specifying the model, the quality of the empirical data in which the model is firmly anchored and the correct use of statistics. Even if this dissertation only produces few statistics or quantitative data, it relies on those produced by credible sources.

9. Methodology

To accomplish what it sets out to do and contribute new knowledge, the present research must succeed in proving the comparative advantages of R4I contracts over traditional mining investment contracts. For that purpose, the main methodology of the dissertation is cost-benefit analysis. The analysis consists in measuring and comparing the costs and benefits of investment contracts by placing monetary values on those costs and benefits. Whenever research sees an issue primarily in efficiency terms, cost-benefit analysis appears as the best decision framework.[57] Inasmuch as this dissertation sees China's mining investments in Africa primarily in efficiency terms, cost benefit analysis seems the most rational route for the dissertation to serve its purposes.

Information on the effects (i.e. costs and benefits) of investment contracts requires sifting through a rich mass of legal and economic empirical data. The vast empirical data informing and constituting the premises on which the final conclusions of this dissertation rests fall in four principal groups, namely the available R4I contracts, a 2009 World Bank infrastructure project finance database, expert interviews and the author's independent investigations.

In the first group are R4I contracts. The terms of R4I contracts are the primary empirical data of this dissertation. In research studying contracts, contractual documents or any document reproducing the terms of the contracts being studied are the primary empirical data. Second, the empirical evidence on R4I investment contracts consists for the most part of raw data gathered by the World Bank and published in an

[57] Lester B. Lave, *Benefit-Cost Analysis: Do the Benefits Exceed the Cost, in* RISKS, COSTS, AND LIVES SAVED: GETTING BETTER RESULTS FROM REGULATION 104, 110 (Robert W. Hahn ed. 1996).

oft-cited report *Building Bridges* in 2009.[58] The World Bank compiled this database on China's infrastructure finance in Africa by triangulation. To collect those data, the Bank used a powerful[59] English language business media database, Factiva, which is a Dow Jones & Reuters company. The Bank then reviewed and attempted to verify the collected data through its own channels.[60] The Bank ran a second round of data collection in which it systematically reviewed Chinese press reports that it validated through both Chinese and international sources.[61] One of the downsides of the database is that it only covers the period from 2001 to 2007, thus raising the need to supplement the database.

Open-ended expert interviews fall in the third group. There is no known publication or secondary sources devoted entirely to R4I investment contracts. The relative novelty of R4I contracts accounts for this dearth of secondary sources on R4I contracts. In order to supplement information presented in the World Bank database and to create an evidential basis on which credible investigations could be carried out on R4I contracts, the present research relied on several open-ended interviews with selected experts in finance, infrastructure, and investment contracts. The interviews thus produced information on R4I contracts in the form of expert witness evidence.

Finally, the author conducted independent investigations to further supplement the information found in the World Bank database by searching for R4I contracts concluded after 2007 and by attempting to identify R4I contracts that the database

[58] VIVIEN FOSTER ET AL., *supra* note 23, at 79ff. The data base is reproduced in full in the five annexes to the *Building Bridges* report.
[59] Factiva is a business and information research commercial database, covering international newspapers, magazines, and business press releases. It has more than a hundred continuously updated newswires and draws on more than 14,000 different sources from 152 countries in 22 languages.
[60] VIVIEN FOSTER ET AL., *supra* note 23, at 11-12.
[61] *Id.* at 12.

might have overlooked as ordinary, traditional investment contracts. This independent exercise allowed the research to identify at least two confirmed,[62] one uncertain[63] and one possible R4I contract.[64] These investigations usually re-examine the World Bank database in light of recent publications on the issue of China's economic engagement with Africa.

Apart from these sources, the research also uses more orthodox legal research methodologies and sources, the most obvious of which are investment contracts. Investment contracts lay down ground rules on which the contracting parties agreed, such as the law applicable to the investment project, the choice of a dispute resolution forum, *force majeure,* good faith and changed circumstances.[65] In FDI law, the distinction between international law and domestic law is not watertight. The legal regime for investment contracts between a foreign investor and host state draws on both public and private law,[66] both customary international law and national regulation.[67] To be sure, the Permanent Court of International Justice, in the *Serbian Loans Case,* adjudicated that every investment contract must have a basis in a national legal order.[68] The sources of FDI law, just like public international law,[69] are

[62] The contract between the Democratic Republic of the Congo and China signed in 2008 for the exchange of copper and cobalt for various economic and social infrastructure; and the series of contracts between Indonesia and China to finance billions of dollars in Indonesian infrastructure projects in exchange for thermal coal.
[63] The National Integrated Power Project (NIPP) in the Mambilla plateau in Nigeria.
[64] The contract between Guinea and China signed in late 2009 and that provided for both mining and infrastructure investments.
[65] RUDOLF DOLZER & CHRISTOPH SCHREUER, PRINCIPLES OF INTERNATIONAL INVESTMENT LAW 73 (Oxford University Press 2008).
[66] *Id.* at 3.
[67] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), INTERNATIONAL INVESTMENT AGREEMENTS: KEY ISSUES 1. Vol. 1. (United Nations 2004). [hereinafter UNCTAD, INVESTMENT AGREEMENTS VOL. I].
[68] PCIJ, Judgement, No. 14, Series A, No. 20, 41: '[a]ny contract which is not a contract between States in their capacity as subjects of international law is based on the municipal law of some country.'
[69] As spelt out in the Statute of the International Court of Justice art. 38, ¶2 &, June 26, 1945, 59 Stat. 1055, T.S. No. 993.

international treaties, customary international law, general principles of law, and judicial decisions.[70]

Finally, with particular reference to its substantive sources as distinct from its formal ones, the dissertation, owing to the nature of the research, is both selective and eclectic in its sources and style, ranging from FDI law, law and economics, political economy, international finance, international relations and national politics. Research at a doctoral level encourages a certain measure of inter- and multi-disciplinarity that is out of the researcher's own depth and that trespasses on the turf of other experts.

10. Outline of chapters

10.1. Logical structure

The gist of the dissertation's main argument is that R4I contracts considerably increase infrastructure investments in Africa by far more than traditional investment contracts. This argument is the final conclusion of a series of key inferences, basic and intermediate premises, that structures the entire dissertation. The basic inference is that macroeconomic fundamentals dictate the economic exchanges between resource rich countries in Africa and China (Chapter 4). Most countries in Africa are generally resource rich but lack backbone socio-economic infrastructure while China has not enough resources but one of the most competitive construction industries. These macro-economic fundamentals have led to massive investments from China to resource rich countries in Africa (Chapter 3), whose mineral wealth is associated with institutional weakness and a myriad political, economic and security issues (Chapter 5).

[70] M. SORNARAJAH, THE INTERNATIONAL LAW ON FOREIGN INVESTMENT 79ff (Cambridge University Press 2010).

Another key inference is that, while many investment contracts respond to macroeconomic fundamentals, R4I contracts make Chinese and African economies truly complementary and are more efficient than ordinary investment contracts (Chapter 6), which is why they should serve as a model for resource rich countries in Africa (Chapter 7).

Traditional mining contracts have been relatively successful in the trade of mineral resources but traditional project finance has failed to yield sizeable infrastructure investments because many infrastructure sectors are not financially attractive to foreign investors (Chapter 6). R4I contracts have resolved the lack of infrastructure investments by financing infrastructure development through its revenues from generally vibrant mining sectors while creating incentives to negotiate greater mining investments in order to finance infrastructural works (Chapter 6).

This logical outline shows that the organization of the dissertation is thematic: Each chapter addresses themes structured so as to respond to the research objective of the dissertation. Thus, the dissertation does not read like a contract document. However, the organization of the analysis of R4I contracts in the Appendix is contractual, thus presenting the issues pertaining to R4I contracts comprehensively.

10.2. Specific outline

More specifically, in order to answer the basic research question, this dissertation adopts the following structure:

Chapter 1 Introduction

Chapter 2 Basic concepts and investment contracts

This chapter defines key concepts and articulates them by putting forth the criteria for the selection of the clauses that constitute the proposed contractual framework for making the most of China's mining FDI. It also sets out the essential elements of the contractual framework designed in this dissertation.

Chapter 3 China's investments in Africa

This chapter identifies the peculiarities of China's investments in the mining sectors of PIRSA. It assesses the extent to which China's FDI as a contractual phenomenon structures China's commercial transactions and, in passing, R4I contracts in the mining sectors of PIRSA.

Chapter 4 Sino-African Macroeconomic complementarities

This chapter discusses the strategic value of mineral resources in current global economic affairs and how this value affords some African states considerable growth opportunities. It shows the intersectoral complementarities that China's FDI creates in mining and construction in Africa.

Chapter 5 The PIRSA

This chapter describes the geopolitical and socio-economic contexts of some PIRSA and expounds on the resource curse thesis.

Chapter 6 Resource-for-infrastructure versus traditional investment contracts

The chapter analyzes the R4I contracts and studies how these contracts resemble or differ from traditional investment contracts.

Chapter 7 Optimizing China's mining investments: The contractual model

This chapter proposes a contractual framework or model for the optimization of China's FDI in the mining sectors of PIRSA by outlining the basic clauses that can best leverage those investments. The entire R4I Contract Model is in the dissertation's Appendix.

Chapter 8 Conclusion

CHAPTER 2

BASIC CONCEPTS AND INVESTMENT CONTRACTS

This chapter is about investment contracts. It divides its exposition of investment contracts in three parts. The first part of the chapter expounds on contracts in general.

Here, the chapter defines basic concepts of investment contracts and this dissertation. The next part presents FDI and how contracts can be instrumental in structuring FDI and business transactions. The third part spells out the rationale and policy goals of investment contracts and uses them as benchmarks for the inclusion of the clauses that constitute the contractual model proposed in this dissertation to optimize China's FDI.

The contribution of this part of the dissertation is that it articulates the contract law perspective to China's FDI in the mining sectors of Africa. Moreover, in explicating what contracts and investment contracts do, the chapter sets the scene for the dissertation's central point, which is to prove that the R4I model is a superior form of investment contracts with respect to China's mining FDI.

1. Investment, contracts and investment contracts

1.1. Investment

1.1.1. The concept of foreign direct investment

The analysis and clarification of the 'foreign direct investment' concept is in order because it lacks a precise meaning and; consequently, the boundaries of its field are not well demarcated. The IMF volunteers a now commonly used[1] definition of FDI as

> … the category of international investment that reflects the objective of a resident entity in one economy obtaining a lasting interest in an enterprise resident in another economy.[2]

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[1] The Organization for Economic Co-operation and Development (OECD) uses the IMF definition. *See* ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), OECD BENCHMARK DEFINITION OF FOREIGN DIRECT INVESTMENT (Organization for Economic Co-operation and Development 1996).

[2] INTERNATIONAL MONETARY FUND (IMF), BALANCE OF PAYMENTS MANUAL 86 (International Monetary Fund 1993).

Still, an investment contract or BIT can broaden or narrow the definition of FDI to extend or restrict the kinds of assets covered and to determine the nature of the obligations created by the contract or BIT.[3]

White & Fan say that the concept is ambiguous for at least three reasons. First, the concept comprises and confuses funding, ownership and operation, which are three related yet distinct activities.[4] As a result, it is unclear which one, if not all, of these activities the concept is referring to.

White & Fan also say that the ambiguity arises because the analysis of the concept requires several approaches, including the financial theory relating to capital markets, game theory and the management theory relating to strategy, the theory of the firm, political theory, and neoclassical economics relating to production and trade.[5] To these approaches can also be added legal techniques relating to the mitigation of political risks, insurance guarantees, incentives, and dispute resolution.

The third reason for the ambiguity relates to the meaning of the three components of the phrase 'foreign direct investment.' To get to the bottom of the concept and the full scope of the field of 'foreign direct investment,' each of these three components has to be analyzed and clarified. Starting with 'foreign,' it is not clear to which of these activities, namely funding, ownership or control of the firm, the word 'foreign' applies.[6] With respect to 'direct,' the word usually indicates control of production facility and a significant degree of influence by the foreign investor on the firm's

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[3] UNCTAD, INVESTMENT AGREEMENTS VOL. I, *supra* Ch. 1 note 67, at 113.
[4] COLIN WHITE & MIAO FAN, RISK AND FOREIGN DIRECT INVESTMENT 42 (Palgrave Macmillan 2006).
[5] *Id.* at 44.
[6] *Id.* at 43.

management,[7] but ownership and control do not necessarily coincide.[8] Finally, the word 'investment' is equivocal. Economists define 'investment' as the production of goods that will be used to produce other goods.[9] Yet it is uncertain whether 'investment' refers to the financial flow generated by the production facility, as is often the case, or the actual transfer of resources.[10]

For all these reasons of ambiguity and confusion, the boundaries of the province of foreign direct investment are disputed, but the dispute does not prevent the theoretical location of the core of foreign direct investment and the body of law that governs it. Locating FDI within the broad field of international economic law is critical to make sure that R4I contracts are properly labeled as investment contracts rather than trade agreements or other economic arrangements.[11]

1.1.2. Foreign direct investment versus portfolio investment

A distinction must be made between portfolio investment and foreign direct investment (FDI), which is the object of this dissertation. FDI involves the acquisition of physical capital or the transfer of tangible and intangible assets from one (source) country into another (host) country to generate wealth in the host country under the total or partial control of the owner of the assets.[12] The hallmark of FDI is the transfer of physical property – like plant and equipment – that is bought or built.[13]

[7] INTERNATIONAL MONETARY FUND (IMF), *supra* note 2, at 86.
[8] COLIN WHITE & MIAO FAN, *supra* note 4, at 43.
[9] Kevin A. Hassett, *Investment, in* THE CONCISE ENCYCLOPEDIA OF ECONOMICS (David R. Henderson ed. 2008).
[10] COLIN WHITE & MIAO FAN, *supra* note 4, at 43.
[11] *See e.g.* DEBORAH BRÄUTIGAM, THE DRAGON'S GIFT: THE REAL STORY OF CHINA IN AFRICA 46ff (Oxford University Press 2009)(describing incorrectly R4I contracts as 'long-term trade' agreements).
[12] *See* Deardorff's Glossary of International Economics, http://www-personal.umich.edu/~alandear/glossary/ (last visited Sept. 19, 2009); M. SORNARAJAH, *supra* Ch. 1 note 70, at 8.
[13] M. SORNARAJAH, *supra* Ch. 1 note 70, at 8.

By contrast, portfolio investment involves the transfer of capital for the purpose of buying securities in a firm incorporated or operating in another country. In economics and finance, 'portfolio investment,' which usually occurs on stock exchanges across national borders and/or currencies, represents the acquisition of portfolio capital, that is financial assets (such as stocks or securities, bonds, deposits and currencies), but with no control of the securities' issuer by the portfolio investor.[14] Obvious examples of portfolio investment are the purchase of corporate stocks and government bonds, but they could also be security instruments issued to raise capital for ventures.[15] The 5.5 billion US dollars purchase by Industrial and Commercial Bank of China (ICBC) of a 20 percent stake in the South Africa's largest bank Standard Bank in February 2008 is a perfect example of a major portfolio investment.

The other distinctive element is the issue of management: With portfolio investment management is divorced from control of the firm and the share of ownership in it.[16] The reason for the separation of management from control is that the risks in portfolio investment can easily be managed. Another reason is that the investor brings into the host country physical capital that it could have used in its home state or elsewhere.[17] Finally, the nature of the enterprise also justifies why portfolio investment is not protected by a specific regime under international law and why FDI is.

However, parties can blur the distinction between FDI and portfolio investment if they agree in a BIT or investment contract to incorporate portfolio investment in the

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[14] *See* Deardorff's Glossary of International Economics, *supra* note 12.
[15] M. SORNARAJAH, *supra* Ch. 1 note 70, at 8.
[16] *Id.*
[17] *Id.* at 8.

definition of 'foreign investment' if they intend to protect both FDI and portfolio investment. For that reason, this dissertation is concerned with portfolio investment only insofar as they relate to China's FDI in the mining sectors of Africa.

1.1.3. Foreign direct investment versus international trade

FDI is also distinct and distinguishable from international trade because the business nature of the two differs, notwithstanding the strong links of the two with international economic law in general.[18] Whereas a trade transaction characteristically consists in a *one-off* exchange of goods and money, a FDI deal initiates a *long-term* relationship, a 'lasting interest'[19] between the foreign investor and the host state, which may span more than 30 years.[20] The long-term nature of FDI appears from the investor's business plan, which often sinks substantial resources into a project, expecting to recoup the sunk costs plus an attractive rate of return on the investment at a later stage.[21]

Contracts are adequately equipped to stabilize the *long-term* relationships that FDI gives rise to. Contracts are the specifically legal machinery appropriate when a specialized economy – which relies on exchange for apportionment of product and productive energy – moves into the phase of credit dealings, i.e. of future dealings generally.[22] R4I contracts are also relational in that they occur through time in a process of continuous interaction between parties. The more relational an exchange (i.e. the more it is projected into the future), the more likely the parties will be unable in

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[18] *See* RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 2.
[19] INTERNATIONAL MONETARY FUND (IMF), *supra* note 2, at 86.
[20] *See* RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 3.
[21] *Id.* at 3-4.
[22] Karl Llewellyn, *Contract: Institutional Aspects*, ENCYCLOPEDIA OF SOCIAL SCIENCE, 1931, 330-331.

advance to precisely define performance obligations in advance or the allocate risks optimally,[23] as is the case with R4I contracts.

1.1.4. Risks

The long-term relationship imbedded in FDI transactions implies risk. A risk, in investment and finance law, means the probability of a permanent loss of assets. In discussing risk, analysts must be able to tell the possibility that a party to the contract may default (i.e. default risk) from the degree of dispersion among possible outcomes (i.e. volatility risk).[24] Thus, saying that a party is risk averse signals that she prefers low volatility investments to high volatility investments, and that she must be paid a risk premium to accept the high volatility risk investment, even if there may be almost no risk of default.[25]

An omnipresent item of the design of FDI is to identify beforehand the risks inherent in the long term relationship both from a legal and business perspective, then to formulate a business concept and a legal structure suitable to the implementation of the project, and to minimize risks that may arise during the implementation.[26] In the course of negotiating an investment agreement, the foreign investor normally bears the commercial risks, and the host state would bear the non-commercial, political risks. Political risks are the risks faced by an investor that a host country will confiscate all or a portion of the investor's property rights located in the host country.[27] Volatility risks

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[23] ROBERT S. SUMMERS & ROBERT A. HILLMAN, CONTRACT AND RELATED OBLIGATION: THEORY, DOCTRINE, AND PRACTICE 28 (Thomson/West 2006).
[24] *See* JONATHAN R. MACEY, AN INTRODUCTION TO MODERN FINANCIAL THEORY 13 (The American College of Trust and Estate Counsel Foundation 1998).
[25] *Id.* at 17.
[26] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 4.
[27] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 1.

and some forms of default risks are commercial risks and do not therefore qualify as political risks.

At the conclusion of the investment contract after the resources have been sunk into the project, the balance of power shifts from the foreign investor to the host state. The greatest risk is that of a change of government that would alter the scheme of obligations, risks and benefits, which the two parties have agreed upon during the negotiations of the investment contract and which ground the investor's business plan and legitimate expectations spelt out in the plan.[28] Since they are sovereign, host governments can modify the terms of investment contracts.[29] This risk is far more acute for governments that start with a weak reputation, like many governments in Africa, especially where no geological survey is available or planned, so that the future value of prospecting rights for minerals changes contingent upon discoveries.[30] Coupled with unstable commodity prices, political risks lurk when host governments experience pressures to raise mining/oil taxes when prices are unusually high. For example, this year in Zambia, the government considered windfall taxes on copper exports as a response to copper price hikes.

The transfer of physical property to the host country, foreign investors' role in the management of their investments, the long-term relationship that FDI deals create, and the risks inherent in FDI are all traits that identify and distinguish FDI from other branches of international economic law like international trade. FDI is intrinsically distinct from the broader field of international economic law by its structure and purpose.

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[28] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 4-5.
[29] Paul Collier, *Laws and Codes for the Resource Curse*, 11 YALE HUM. RTS. & DEV. L.J. 9, 16 (2008).
[30] *Id.*

1.2. Contracts

1.2.1. The nature of contracts

This section of the chapter simply proffers a very basic notion of contracts, at the risk of sounding shallow, because contributing a *contract* perspective to the scholarship on China's investments in Africa necessarily presupposes a basic understanding of contracts. The point of this section is to provide that basic understanding, not to unveil a general theory on contracts or grind out a textbook on contract law.

The answer to the question as to what acts or facts constitute a 'contract' is location-specific: It varies within a legal system and from one legal system to the other. In a federal system like that of the US, the answer may depend on the law of the states where the acts or facts in question take place.[31] In the context of the French legal system, Jean-Luc Aubert remarks that the extraordinary diversity of the contractual phenomenon destabilizes the integrity and unity of the French notion of contract.[32]

Furthermore, in the rural areas or customary law settings of some developing countries such as those found in Africa and Asia, Western conceptions of contracts may not match the local practices of promising.[33] The Nigerian jurist Elias held an opposite view. He recognized that contractual relationships in 'simple' African communities

[31] This statement is not oblivious of the fact that the US Uniform Commercial Code has achieved a considerable degree of uniformity in the contract and commercial laws of the 50 states of the US.
[32] JEAN-LUC AUBERT, *supra* Ch. 1 note 52, 19.
[33] Terrance O'Reilly, *Contract Theory On and Off the Grid*, 92 VA. L. REV. 1581, 1585 (2006) (claiming that the lack of a reliable institution of contract in a society indicates, to the extent the society has a convention of promising, that the local convention of promising differs in significant respects from those familiar to developed societies in the West). The author agrees with Terrance O'Reilly that 'social conventions of promising' in developing countries may differ from those in developed ones, but the author disagrees with O'Reilly's assumption there can be a society, even in developing countries, without a practice of promising or contracting.

were indifferent to executor contracts.[34] However, he wrote that the essential features of mutuality of obligations, respect for one's plighted word, the avoidance of fraud or force or unlawful breach of contract are present in the African law of contract.[35] In other words, Elias believed that the African conception of contract is in no fundamental sense different from the Western conception.

The differences of legal tradition and historical developments between common and civilian lawyers further complicate the definition of a contract. Whereas common lawyers generally define contracts as self-imposed promissory obligations,[36] civilian lawyers define them as agreements that produce obligations and certain patrimonial effects.[37] In common law jurisdictions like the US and the United Kingdom (UK), competing understandings of contract exist alongside the orthodox view of contracts as a promise. Jurists have also argued that contracts are, or should be regarded as, (1) obligations imposed by law to ensure that those induced to *rely* on certain representations are not made worse off as a consequence,[38] and (2) obligations to respect property-like rights that have been intentionally *transferred* (not created) between contracting parties.[39] Table 2 below presents these contract theories plus the exchange theory that this dissertation propounds.

Table 2: Nature of contracts

[34] T.O. ELIAS, THE NATURE OF AFRICAN CUSTOMARY LAW 153 (Manchester University Press 1956).
[35] *Id.*
[36] STEPHEN A. SMITH, CONTRACT THEORY 56 ff (Oxford University Press. 2004).
[37] JEAN-LUC AUBERT, *supra* Ch. 1 note 52, 20ff.
[38] Lon L. Fuller & W. Purdue, *The Reliance Interest in Contract Damages*, 46 YALE L.J. 53 (1936); PATRICK ATTIYAH, PROMISES, MORALS, AND LAW (Clarendon Press 1981); GRANT GILMORE, THE DEATH OF CONTRACT (Ohio State University Press 1974); STEPHEN A. SMITH, *supra* note 36, 78 (stating that reliance theories of contract are models rather than theories adopted in full by a scholar or a group of scholars).
[39] Peter Benson, *Contract, in* A COMPANION TO THE PHILOSOPHY OF LAW AND LEGAL THEORY 42ff (D. Patterson ed., 1996).

Theory	Promise	Reliance	Transfer	Exchange
Main Argument	Contracts as self-imposed promissory obligations[40]	Contracts as obligations imposed by law to ensure that those induced to *rely* on certain representations are not made worse off as a consequence	Contracts as obligations to respect property-like rights that have been intentionally transferred (not created) between contracting parties	Contracts as the terms of economic exchanges
Leading proponent	Joseph Raz	A model rather than a theory adopted in full by a scholar or a group of scholars[41]	Peter Benson	Not a general contract theory, but a specific analytical framework used to explain the existing R4I contracts and the proposed R4I model

Three basic categories encompass prominent contract theories, namely party-based, standards-based, and process-based.[42] Party-based theories are those that aim at protecting one party to a contract. Some theories protect the promisor, as do will theories. According to the will theory, courts should give legal force to commitments because the promisor has 'willed' or voluntarily chosen to be bound by those commitments.[43] For will theorists, contract law 'gives expression to and protects the will of the parties, for the will is something inherently worthy of respect.'[44] Will theories are therefore subjective theories on the nature of contracts. Conversely,

[40] The majority US legal scholars regard Charles Fried's *Contract as Promise* (CONTRACT AS PROMISE: A THEORY OF CONTRACTUAL OBLIGATION (Harvard University Press 1982)) as the archetype of this contract theory. This dissertation does not claim copyrights over this perspective as such but over the use of this perspective to analyze R4I contracts.
[41] STEPHEN A. SMITH, *supra* note 36, at 78.
[42] Randy Barnett, *A Consent Theory of Contract,* 86 COLUM. L. REV. 269, 271ff (1986).
[43] *Id.* at 272.
[44] Cohen, *The Basis of Contract*, 46 HARV. L. REV. 553, 575 (1933).

however, reliance theories are protective of the promisees' reasonable reliance on the promisor's commitments.

The three main standard-based analyses of contracts are fairness, rights and efficiency theories. Unlike party-based theories, standard-based theories are normative and not analytic. Among fairness-based contract theories, are arguments that contract law should make sure that parties do not exploit or take advantage of each other or that parties treat each other fairly, or in good faith, or even altruistically.[45] Rights-based theories maintain that contractual obligations should not infringe individual rights and that contract law should enforce such obligations, as opposed to some other wider social goal of efficiency, social welfare, or the like.[46]

Efficiency-based theories hold that contract law should promote efficient behavior or efficiency, which they understand as behavior whose benefits outweigh its costs.[47] The R4I contractual model and the view of contracts as the terms of economic exchanges, espoused by this dissertation, are efficiency-based. The judiciary can promote efficient

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[45] STEPHEN A. SMITH, *supra* note 36, at 160.
[46] *Id.* at 140-141.
[47] *See* A. MITCHELL POLINSKI, AN INTRODUCTION TO LAW AND ECONOMICS 7 (Aspen Publishers 2003). Excellent treatises on the economics of contracts can be found in the following publications: Chapter IV (General contract law) and Chapter V (Regulation of contracts) of BOUDEWIJN BOUCKAERT & GERRIT DE GEEST, ENCYCLOPEDIA OF LAW AND ECONOMICS (Boudewijn Bouckaert & Gerrit De Gees 1999); VICTOR P. GOLDBERG (ED.), READINGS IN THE ECONOMICS OF CONTRACT LAW (Cambridge University Press 1989); Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules,* 99 YALE L.J. 87-130 (1989); A. Mitchell Polinsky, *Fixed Price Versus Spot Price Contracts: A Study in Risk Allocation,* 3 J.L. ECON. & ORG. 27-46 (1987); A. Mitchell Polinsky, *Risk Sharing Through Breach of Contract Remedies,* 12 J. LEGAL STUD. 427 (1983); George L. Priest, *A Theory of the Consumer Product Warranty,* 90 YALE L.J. 1297-1352 (1981); Charles J. Goetz & Robert E. Scott, *Enforcing Promises: An Examination of the Basis of Contract,* 89 YALE L.J. 1261 (1980); Benjamin Klein, Transaction Cost Determination of 'Unfair' Contractual Arrangements, 70 American Economic Association Papers and Proceedings 1980, 356-362; Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations,* 22 J.L. & ECON. 233 (1979); Paul H. Rubin, *The Theory of the Firm and the Structure of the Franchise Contract,* 21 J.L. ECON. 223-233 (1978); Alan Schwartz, The Law and Economics Approach to Contract Theory (The Center for Law and Economic Studies, Columbia University School of Law, Working paper No. 123).

behavior through the instrumentality of court orders, but in practice efficiency theories argue that law promotes efficient behavior by establishing incentives for efficient behavior and disincentives for inefficient behavior.[48]

Thirdly, the best-known process-based contract theory is the bargain theory of consideration, which still rules the day in American contract law. The theory came about as a means to distinguish, out of the infinitely great number of agreements struck every day, between enforceable and unenforceable agreements.[49] Section 71 of the US Restatement (Second) of Contracts is an authoritative statement of consideration:[50]

1. To constitute consideration, a performance or a return promise must be bargained for.
2. A performance or return promise is bargained for if it is sought by the promisor in exchange for his promise and is given by the promisee in exchange for that promise.

Here, it is not what is bargained for that matters; it is that each party's promise is induced by the other's.[51] The bargain theory of consideration has two shortcomings at a minimum: First, the theory's exclusive focus on process conceals the substantive values that dictate the choice of process; second, the inability of the theory to explain why certain types of agreements are not or should not be enforceable.[52] These issues of contract formation feature prominently in national contract laws, but admittedly investment contracts are invulnerable to such issues because of the undeniable nature of investment contracts as bargains and economic exchanges.

[48] STEPHEN A. SMITH, *supra* note 36, at 109.
[49] *See* Randy Barnett, *supra* note 42, at 287.
[50] RESTATEMENT (SECOND) OF CONTRACTS § 71(1), (2)(1979).
[51] Randy Barnet, *supra* note 42, at 289.
[52] *Id.* at 289-290.

1.2.2. Contracts as terms of economic exchanges

The sheer variety of contracts forces, as it were, this dissertation to adopt a working definition of contract beyond the legal field. Whilst legal definitions of contracts vary, definitions of the economic reality referred to by those definitions do not. In the economic analysis of contract law, Steven Shavell's definition is germane. A contract is[53]

> a specification of the *actions* that named parties are supposed to take at various times, generally as a function of the *conditions* that hold. The actions typically pertain to delivery of goods, performance of services, and payments of money, and the conditions include uncertain contingencies, past actions of parties, and messages sent by them.

However, for its analytical purposes, this dissertation prefers to refer to a contract as the terms and conditions of economic *exchanges*, with stipulated patrimonial consequences. This definition also circumvents the problem posed by the differences of legal definitions of contracts and instead stresses the economic nature of contracts, especially the contract and property dimensions of economic exchanges. Such an approach, not far away from Shavell's, facilitates references to those transactions while leaving it to local lawyers in given jurisdictions to work out the particularities of contract formation, i.e. process of specifying actions and conditions.

An economic exchange or a bargaining transaction involves a seller of goods or services, or both, and a buyer. Simply put, a sales analogy is a most useful analytical tool to detect the presence or absence of an economic exchange. Economic exchanges are infinite, and this dissertation only zeroes in on commercial contracts, that is, contracts between a firm as a seller to another firm as a buyer. Classified according to

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[53] STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 291 (Harvard University Press 2004).

the parties (firms or individuals), economic exchanges fall into four broad transactional categories regulated by specific areas of the law:[54]

1. A firm sells to another firm, called commercial contracts and the prime subject of contract law;
2. an individual sells to another individual, primarily regulated by family law[55] and real property law;[56]
3. a firm sells to an individual, primarily regulated by consumer protection law, real property law,[57] and securities laws; and
4. an individual sells to a firm, regulated by laws governing labor relations.

In contracts, a 'firm' stands for one of the following three economic entities:[58] (1) A corporation, (2) a limited partnership, or (3) a professional partnership such as a law or accounting firm.

This transactional classification discloses that contract law does not cover the entire realm of economic exchanges. A good example of this proposition is the different status of contracts in law and in economics. International law does not envision treaties as a form of contracts whereas law and economics scholarship often treats treaties as 'contracts.' Some scholars analogize treaties to contracts[59] while others claim that

[54] Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law,* 113 YALE L.J. 541, 544 (2003).
[55] For example, antenuptial agreements and divorce settlements.
[56] For example, home sales and some lease agreements.
[57] Most leases between a firm and an individual belong to this category.
[58] Alan Schwartz & Robert E. Scott, *supra* note 54, at 545.
[59] JOHN DUGARD, INTERNATIONAL LAW: A SOUTH AFRICAN PERSPECTIVE 28 (Juta & Co., Ltd. 2005)(stating that treaties may be of a contractual nature when two or more states 'contract' with each other to establish a particular legal relationship in matters such as trade, air and landing rights and mutual defense); Jeffrey L. Dunoff & Joel P. Trachtman, *Economic Analysis of International Law*, 24 YALE J. INT'L L. 1, 30ff (1999)(stating that as an agreement intended to be legally binding, a treaty is often considered to be a form of contracts).

treaties are contracts.[60] Richard Posner claims that treaties, international conventions, and other agreements between or among nations are contracts.[61] The economics of contracts can be applied to them, even if that means assuming that nations behave much like individuals in their commercial relations.[62] For Posner, therefore, BITs are 'contracts' just like international investment contracts. Likewise, this dissertation views treaties in economic terms and equate them to contracts, insofar as they embody the terms of economic exchanges.

'Terms' or 'clauses' are units of agreements and as such they are the quintessence of economic exchanges. Following the Aristotelian ethical tradition, James Gordley distinguishes contracts to make gifts from contracts to exchange, which he describes as 'an act of voluntary commutative justice[63].'[64] The renowned jurist Lon Fuller loosely defined an 'exchange' as a 'transaction from which each participant derives a benefit, or, more restrictively, as a transaction in which the motives of the parties are primarily economic rather than sentimental.'[65]

Framing contracts as exchanges is a stance that is not without critics. J.E. Penner, professor at University College London, is highly skeptical of contemporary notions of property and contract, which he argues are corrupted by 'fetishism' in Karl Marx's sense.[66] Penner claims that the fetishized notion of property is intrinsically linked to a

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[60] RICHARD A. POSNER, *supra* Ch. 1 note 20, at 135 (placing 'treaties and other international agreements' under the category 'contract rights and remedies').
[61] *Id.* at 135-136.
[62] *Id.* at 136.
[63] "'Commutative justice' is achieved when if the price term in an exchange is fair; generally, the prevailing price in a competitive market is fair." Terrance O'Reilly, *supra* note 33, at 1594.
[64] JAMES GORDLEY, FOUNDATIONS OF PRIVATE LAW: PROPERTY, TORT, CONTRACT, UNJUST ENRICHMENT 287, 352, 361 (Oxford University Press 2007).
[65] Lon L. Fuller, *Consideration and Form*, 41 COLUM. L. REV. 799, 816-817 (1941).
[66] J.E. Penner, *Property, Community, and the Problem of Distributive Justice*, 10 THEORETICAL INQUIRIES L. 193, 194 (2009) (defining 'fetishism' as the common and distorted understanding of property whereby individuals think it applies where it does not, or perhaps they think it an illuminating

correspondingly fetishized notion of contract, whereby all contracts are exchanges of property rights, and property is nothing but that which can be exchanged.[67] For Penner, the problem with such notions is that contracts are reduced to purchaser choice, and ideas of contracts as relational, long-term, joint ventures under which parties coordinate their behavior to mutual and joint advantage are downplayed.[68]

However, alternative contract theories – whether party-based, standard-based or process-based[69] – fail to capture the cost-benefit analysis that is at the heart of risk assessment in general and the main research question asked and the type of contracts examined in this dissertation. Efficiency and economic contract theories do in fact employ cost-benefit analyses, but they are normative[70] and not analytic, though the boundary between normative and analytic questions is fuzzy.[71] At any rate, the view of contracts as terms of economic exchanges is both analytic and normative. It therefore provides a more rounded account of contracts.

1.2.3. The contract and property dimensions of exchanges

The dissertation's definition of contracts recognizes that economic exchanges have certain stipulated consequences on property and property rights. Indeed, contract and

model of a relation even where they recognize that the relation being modeled is not, strictly speaking, property, and then seem to forget that fact).

[67] *Id.* at 196.

[68] *Id.*

[69] Randy Barnett, *supra* note 42, at 271ff. Party-based theories (i.e. will and reliance theories) are those that aim at protecting one party to a contract. Unlike party-based theories, standard-based theories (i.e. fairness, rights and efficiency theories) are normative as opposed to analytic. Thus, standard-based theories deal with the justifications for upholding or ignoring contracts. Finally, the best-known process-based contract theory is the bargain theory of consideration, which still rules the day in American contract law.

[70] STEPHEN A. SMITH, *supra* note 36, at 108.

[71] *Id.* at 107.

property are 'two fixed points of the economics of exchange.'[72] Contracts provide for the creation, variation, transfer and termination of property rights.

A property right is the exclusive authority to determine how a resource is used, be it owned by a private person or the government.[73] The entire domain of private law is related to property rights. Property law is the body of rules that defines property rights; contract law is the body of rules that allows the transfer or exchange of property rights.[74] Stephen Smith convincingly argues that, insofar as one of property law's fundamental task is to determine how and when property rights are created, property and contract are conceptually similar.[75] Viewed from that angle, contract is closer to property than to tort, although both contract and tort form the major part of the law of obligations.[76]

Of property law in general, Smith said that it is a 'hodge-podge of rules whose strongest connection is often historical rather than conceptual.'[77] Today, the idea of property in law, to use a phrase by Penner, is suffering from an identity crisis in that property as a distinct and separate category in a legal system does not make much sense.[78] Penner believes that:[79]

> '[p]roperty' will disappear as a meaningful category of rights if every valuable entitlement, from the right to vote to the right to the shirt on your back, is a property right. The chief rhetorical value of isolating property norms from others lies in the forceful way in which

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[72] *See* LON L. FULLER, THE MORALITY OF LAW 28 (Yale University Press 1969).
[73] Armen A. Alchian, *Property Rights*, *in* THE CONCISE ENCYCLOPEDIA OF ECONOMICS (David R. Henderson ed. 2008).
[74] Paul H. Rubin, *Law and Economics*, *in* THE CONCISE ENCYCLOPEDIA OF ECONOMICS (David R. Henderson ed. 2008).
[75] STEPHEN A. SMITH, *supra* note 36, at 73.
[76] *Id.* at 73-74.
[77] *Id.* at 73.
[78] J.E. PENNER, THE IDEA OF PROPERTY IN LAW 1-2 (Oxford University Press 1997).
[79] J.E. Penner, *Misled by Property*, 18 CAN. J.L. & JURIS. 75 (2005).

> property norms carry weight in a normative system; if no meaningful basis for distinguishing property norms from other norms can be found, then this rhetorical advantage has no warrant.

In particular, property law's identity crisis worsens as the law converts some contractual rights into property rights, such as debts and bank balances.[80]

The emphasis in this dissertation on mineral resources and hydrocarbons compounds the individuation problem of property law. Minerals and hydrocarbons are types of property that receive special treatment under separate legal regimes loosed from the general property law. With the notable exception of the US, in nearly all other countries extractable resources are owned by the state and subject to peoples' rights under national and international law.[81] Prominent among these, is the right of peoples to economic self-determination.

1.2.4. Contract law approach to China's FDI

Most experts on Sino-African economic relations agree that host governments in Africa need to devise an appropriate response to derive the greatest benefit from China's mining investments. The response that this presentation is proposing is contractual. It proposes the adoption of R4I contracts as a model for making the most of China's investments in the mining sectors of Africa.

The present doctoral research bridges a gap in the legal scholarship on China's FDI in the mining sectors of Africa by enriching and enlightening the debate with a contract

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[80] *Id.* at 75-76.

[81] *See* Dunia P. Zongwe, The Legal Justifications for a People-Based Approach to the Control of Mineral Resources in the Democratic Republic of the Congo (Cornell Law School Inter-University Graduate Student Conference Papers. Paper No. 12, 2008) *available at* http://scholarship.law.cornell.edu/lps_clacp/12 (arguing that the right of peoples to control mineral resources is anchored in municipal law as much as in international law).

law perspective. As said in the introductory chapter, the want of a contract law perspective in the legal scholarship on China's FDI in Africa's mining sectors has no warrant, considering the indispensable economic roles that contracts assume in market economies.

In essence, a contract law approach to any phenomenon is one that could support interpretive accounts of that phenomenon by examining the contracts or contractual relationships involved. That is to say that a contract law approach must imply a contract theory. This proposition is not only cogent in logic, but it is also compelling as a practical matter. If a perspective on China's FDI in Africa does not embody a contract law theory or theories, it is inconceivable to contend that the perspective is based on contract law.

Contract theories address two different sorts of fundamental questions: What (the analytic question) and why (the normative question).[82] Thus far, there is no 'complete' contract theory because no contract theory has yet managed to incorporate and attempted to answer both the analytic and the normative question.[83] Worse still, under either the analytic and normative question, jurists have so far proffered no complete descriptive theory, explaining what the law is, nor have they proposed a complete normative theory, explaining what the law should be.[84]

In view of the above, it is small wonder that scholars have not yet carved, if not fleshed out, a complete description and justification of China's R4I contracts in Africa – a project that this dissertation plans to make come true. The analytic aspects of the

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[82] STEPHEN A. SMITH, *supra* note 36, at 42-43.
[83] Alan Schwartz & Robert E. Scott, *supra* note 54, at 541.
[84] *Id.*

dissertation's contract law approach to China's FDI and R4I contracts lie in the dissection of the terms of R4I contracts and their comparison with other investment contracts. The normative aspects of the approach, on the other hand, reside in the arguments and evidence advanced and adduced to demonstrate that R4I contracts are a model, superior to ordinary contract types, for investment in the mining sectors of African economies. These two aspects make up the dissertation's contract law approach to China's FDI and R4I contracts in Africa.

2. Investment contracts in business transactions

Before elaborating on the role of investment contracts in structuring deals in the business world, it is apposite to review the functions of contracts in general. This section brushes a picture of the utility of contracts and the various ways in which they can structure FDI. The point of this exercise is to show how contracts and contract law can organize China's mining FDI in Africa.

Contracts perform both social and economic functions.[85] In society, contracts are instrumental in interpersonal communication, distribution, and the administration of property. In the market, contracts serve as normative standards, a distributive tool, and a mechanism to ensure the predictability and stability of economic relations. R4I contracts contain clauses with similar social and economic functions. In this dissertation, economic functions are emphasized whereas social ones are skimmed over, though equity is discussed when addressing distributive justice issues.

[85] This section draws substantially from JEAN-LUC AUBERT, *supra* Ch. 1 note 52.

2.1. Utility of contracts

2.1.1. Social functions

a) Standard-setting

Contracts subject parties to a set of rules, fixed by the parties' mutual assent, that they have to abide by, failing which specified remedies would avail the aggrieved party. Parties are bound by the contract to observe certain promised behavior – to perform, to give or to refrain from doing something, etc. – and that behavior is taken for granted by the social polity to such an extent that the law guarantees its application. Thus, contracts are an effective mode of setting standards for the behavior of parties to a contract.

b) Distribution

Distribution is the appendage of any contract law system. Aggregate contracting between persons ensures the effective economic operation of contract law by organizing the distribution of property and wealth within and without a given jurisdiction.

c) Stabilization

The inherent or latent threat of sanctions for breaches strengthens the binding effect of contracts. The positive form of this threat is the obligation to honor contracts, as encapsulated in the Latin maxim *pacta sunt servanda.*[86] In *Sapphire*, the learned judge declared that:[87]

> [i]t is a fundamental principle of law, which is constantly being proclaimed by international Courts, that contractual undertakings must be respected. The rule 'pacta sunt servanda' is the basis of every contractual relationship.

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[86] Vienna Convention on the Law of Treaties, May 22, 1969, art. 26, 1155 U.N.T.S. 331, *reprinted in* 8 I.L.M. 679, 690 (1969).(providing that every treaty in force is binding upon the parties to it and must be performed by them).

[87] *Sapphire International Petroleum Limited (Sapphire) v. National Iranian Oil Co.,* 35 I.L.R. 136 (1953).

The sanctity of contractual obligations implies that situations fixed by contract are stable and reliable. Contracts are predictive tools for economic relations: They situate these relations in time, allow for long-term exchanges, and organize, by anticipating it, the course of future relations.

2.1.2. Economic functions

a) Communication

First, contracts create (mostly) economic (and sometimes social) relations between individuals. Contracts are channels by which persons establish relations and bonds with others. Even though the communication in question is economic in nature, it does not exclude affective considerations. Friendship, solidarity, amongst others, can initiate or inspire contractual agreements. In R4I contracts and a host of contractual documents, especially their preambles, parties agree on the pursuit and achievement of development targets in addition the purely business motives of the parties. However, contractual relationships are primarily economic and patrimonial; they are about the exchange of property or services between persons, natural or juristic.

b) Distributive justice

Contracts are an instrument for the (re)distribution of property that maintains a certain equilibrium in the value of exchanged things. They enable persons to get what they do not have with what they have. From this perspective, exchange contracts are most probably the most spontaneous contractual mechanisms. That is not to say that R4I contracts are the most spontaneous investment contracts. R4I contracts are much more complex than simple exchange contracts but they share in common with exchange contracts a concern for the maintenance of a balance in the value of exchanged things. Financial intermediation consolidates the distributive function of contracts by generalizing it. In this regard, R4I contracts differ from most investment contracts because they mostly dispense with financial intermediation through a barter-like payment system.

However, this distributive function does not redress inequalities between contracting parties. Whereas contracts may optimize economic exchanges between African states and China in the mining and infrastructure fields, they may not be sufficient for the two parties to equalize the balance of economic exchanges or engage in interpersonal comparisons of utility. The international economic system is based on unequal exchange[88] and the terms of international economic exchanges, R4I contract terms included, often reflect these unequal power equations.[89]

If a party takes the lion's share of the benefit of a bargain it is usually because that party wields a bargaining advantage, leverage or monopoly power;[90] or because the other party lacks in professional integrity or the required negotiating skills. The challenge for African states is therefore to negotiate contract terms competently so as to get the best deal possible for a party in a weaker position, though contracts are arguably not fit to counterbalance stronger bargaining power.[91]

c) Patrimonial administration

Finally, contractual arrangements permit the administration of property. This extrapolates from the distributive function of contracts, outlined above. Just like

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[88] *See* Boaventura Sousa Santos, *The Postmodern Transition: Law and Politics*, in LLOYD'S INTRODUCTION TO JURISPRUDENCE 1310 (Michael D.A. Freeman, 2001).
[89] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 72.
[90] JEFFREY L. HARRISON & JULES THEEUWES, *supra* Ch. 1 note 19, at 206.
[91] PASCAL LOKIEC, CONTRAT ET POUVOIR: ESSAI SUR LES TRANSFORMATIONS DU DROIT PRIVÉ DES RAPPORTS CONTRACTUELS 219ff (Libraire Générale de Droit et de Jurisprudence *et al.* 2004) (arguing that it is an anomaly that some issues of power are addressed by contract law, advocating the 'emancipation' of power from contract law, and recommending a separate legal regime for power).

contracts entitle persons to control, use, vindicate, encumber, and alienate property and property rights, so do R4I contracts permit parties to exchange natural resources for infrastructure.

2.2. Investment contracts

Foreign investors and host countries use contracts extensively. The variability of contract forms is infinite, and parties can even enter into innominate contracts and contracts *sui generis*. In fact, this dissertation's position is that R4I contracts are *sui generis*, a Latin phrase that refers to agreements whose originality precludes any insertion of such agreements within any existing category of contracts.[92] For that reason, the dissertation invents the new category of resource-for-infrastructure (R4I) investment contracts. R4I contracts are a category of investment contracts that blends a mining or oil contract and an infrastructure project in a single binding agreement.

The galaxy of possible contract forms extends to FDI. However, constant and uniform business practice in several host countries warrants the stereotyping of some investment contractual arrangements in general and in the mining sectors. The common denominator of investment contracts is that they typically bind host states to honor the contracts. In the natural resources and infrastructure sectors, the three main generations of investment contracts are concession agreements, production-sharing agreements (PSA) and contractual arrangements creating infrastructure.

2.2.1. Concession agreements

The mining or oil contract in a R4I framework agreement may be set up following the modern version of concession agreements. A concession agreement is an investment

[92] FRÉDÉRIC LECLERC, *supra* Ch. 1 note 26, at 15.

contract in terms of which a host state grants a foreign investor exclusive rights to explore and produce natural resources, demarcated for those purposes. In such arrangements the state retains ownership of the resources and the power to revoke the contract for public convenience or default,[93] even though exercising that power would predictably have adverse reputational consequences for the host state. In fact, the concession of a public function to a private person is not a recent phenomenon; it harkens back to the Middle Ages.[94] Concession agreements have been around for quite a long while since the colonial days. They took center stage during the colonial period as the transfer of resources from the colonies to the metropolitan states became necessary for these states to convert resources into manufactured products or use them to fuel their industries.[95]

Before 1945, early companies that operated in the natural resources sectors used concession agreements, which tied up production in large areas of land for considerably long periods of time.[96] The agreements transferred title of oil reserves to investors yet they did not oblige investors to explore or produce oil.[97] Host countries would receive a bonus for the oil concession and royalties for barrels produced.[98]

The nature of concession agreements is still contested among international law scholars. Notwithstanding the consensus that concession agreements are contracts and not treaties, the issue remains whether they have the nature and character of public law,

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[93] Jacques Cook, *Modern Enhancements for PPP Concession Agreements,* 28-FALL CONSTRUCTION LAW. 24 (2008).
[94] *Id.*
[95] M. SORNARAJAH, *supra* Ch. 1 note 70, at 38.
[96] *Id.* at 40ff; RUDOLF DOLZER & CHRISTOPHER SCHREUER, *supra* Ch. 1 note 65, at 72.
[97] RUDOLF DOLZER & CHRISTOPHER SCHREUER, *supra* Ch. 1 note 65, at 72.
[98] *Id.*

private law, or a mixture of the two[99].[100] Scholars have variously argued that concession agreements are public contracts,[101] private contracts,[102] and analogous to French administrative contracts.[103] This question is not merely academic; it has very practical ramifications. Deeming that concession agreements are private contracts signals a process that shunned broad, open deliberation at each stage of the creation of the concession agreement and the parties shielded the agreement from public knowledge or influence.[104] The issue has not yet been authoritatively settled, but it clearly appears from the controversy that the answer depends in a large measure on the position in the municipal laws of the host states.

Concession agreements, in a modified form, are still in use in natural resources sector and have resurfaced in the field of infrastructure and utility construction. For example, a 2009 mining agreement between Liberia and China for the development of the Bong iron mine in Liberia is a present-day version of a concession agreement.[105]

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[99] Nicholas Miranda, Note, *Concession Agreements: From Private Contract to Public Policy*, 117 YALE L.J. 510 (2007) (arguing that policy makers and businesses should recast concession agreements, albeit private, as matters of public policy in order to promote transparency, responsiveness and accountability); Viktor Soloveytchik, *New Perspectives for Concession Agreements: A Comparison of Hungarian Law and the Draft Laws of Belarus, Kazakhstan, and Russia*, 16 HOUS. J. INT'L L. 261, 264 (1993) (stating that the legal peculiarity of the concession agreement stems from its dual nature as a contract and as an act of the sovereign).

[100] Homayoun Mafi, *Iran's Concession Agreements and the Role of the National Iranian Oil Company: Economic Development and Sovereign Immunity*, 48 NAT. RESOURCES J. 407, 411 (2008).

[101] Rainer Geiger, *The Unilateral Change of Economic Development Agreements*, 23 INT'L & COMP. L.Q. 73, 102 (1974); E.I. Nwogugu, *Legal Problems of Foreign Investment*, 153 HAGUE RECUEIL DES COURS 211 (1976) (stating that economic development agreements contain reciprocal rights and duties which parties have agreed on to govern their relationship); Derek William Bowett, *State Contracts with Aliens: Contemporary Developments on Compensation for Termination or Breach*, 59 BRIT. Y.B. INT'L L. 49, at 55 (1988)(stating a host state can abrogate a concession by unilateral action in the public interest).

[102] D.P. O'Connell, *A Critique of the Iranian Oil Litigation*, 4 INT'L & COMP. L.Q. 267, 270 (1955).

[103] WOLFGANG GASTON FRIEDMANN, THE CHANGING STRUCTURE OF INTERNATIONAL LAW 200-206 (Stevens & Sons 1964).

[104] Nicholas Miranda, *supra* note 99, at 515-516.

[105] Mineral Development Agreement between the Government of the Republic of Liberia and China-Union Investment (Liberia) Bong Mines Co., Ltd., Jan. 19, 2009.

2.2.2. Production sharing agreements

In the vast majority of cases, the mining or oil contract in R4I framework agreement is modeled after production sharing agreements (PSA). After dramatic changes in mineral industries in the 1960s and 1970s, the old concession agreements were replaced by profit sharing agreements or, more commonly, production sharing agreements. Following the wave of independence in the 1960s, the former colonies and newly independent states needed to re-structure their respective mineral industries. In the oil sector, where Indonesia pioneered the introduction of PSAs in the 1970s,[106] the independent states created state oil corporations and vested them with the ownership of the state's oil resources.[107] Furthermore, collective actions by cartels of producer countries and the desire to develop necessary skills and new technologies by those countries precipitated changes in the petroleum and, to a lesser extent, mineral resources sectors.[108] These changes altered the power equations between producer countries and foreign investors. Eventually, in the oil industry, PSAs supplanted concession agreements, even if the latter are not rare in the mining industry today.

Under PSAs, which operate on the basis of the principle of permanent sovereignty over natural resources,[109] foreign corporations perform a participatory role.[110] Host state-

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[106] It is noteworthy that Bolivia was the first country to use PSAs in the 1950s, though Indonesia was the first to implement the modern form of PSAs in the 1970s.

[107] M. SORNARAJAH, *supra* Ch. 1 note 70, at 40.

[108] *Id.*; RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 72-73.

[109] Permanent Sovereignty over Natural Resources, G.A. Res. 1803 (XVII), U.N. Doc.A/5217 (Dec. 14, 1962). On the principle of permanent sovereignty over natural resources in general, see NICO SCHRIJVER, SOVEREIGNTY OVER NATURAL RESOURCES: BALANCING RIGHTS AND DUTIES (Cambridge University Press 1997); see also Emeka Duruigbo, *Permanent Sovereignty and Peoples' Ownership of Natural Resources in International Law*, 38 GEO. WASH. INT'L L. REV. 33 (2006); Ian Gary, *Transparency and Accountability in the Use of Petroleum Revenues: A Fundamental Ingredient for Security, Reconstruction, and Reconciliation in Africa's Booming Petro-states*, *in* SECURITY, RECONSTRUCTION, AND RECONCILIATION: WHEN THE WARS END 38, 39 (Muna Ndulo ed., 2007); Alice Farmer, *Towards a Meaningful Rebirth of Economic Self-determination: Human Rights Realisation in Resource-Rich Countries*, 39 N.Y.U. J. INT'L L. & POL. 417 (2006).

[110] M. SORNARAJAH, *supra* Ch. 1 note 70, at 40.

owned corporations exercise dominant control of the operations.[111] The risks of failure to find commercially usable oil reserves shifted to foreign investors,[112] but the tax deductibility of exploration expenses countervails those risks. If and when oil reserves are found and produced, the two parties to the PSA divide the product among themselves following a negotiated formula, often subject to a gradual decrease of the rights of the investor.[113]

Just like concession agreements, so is the nature of PSAs a matter of debate. Like traditional concession agreements, PSAs are transactions of a contractual and commercial nature.[114] Nevertheless, beyond this basic finding, scholars are not of one mind as to whether PSAs are private contracts, administrative contracts or a mixture of both.[115] Here, too, it clearly appears that the answer largely depends on the provisions in the laws of host states.

Whatever their nature might be, PSAs may sometimes contain limited protections and guarantees for foreign investors. They may ensure protection from straightforward termination, but might fail to protect from implicit means of modifying contractual terms by dint of legislative and regulatory enactments or amendments.[116] Since their first implementation by Indonesia in the 1970s, PSAs quickly became a favorite vehicle for FDI in developing countries with unstable or unclear legal regimes.[117] And

[111] RUDOLPH DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 73.
[112] *Id*.
[113] *Id.*
[114] HENRY CATTAN, THE LAW OF OIL CONCESSION IN THE MIDDLE EAST AND NORTH AFRICA 20 (Oceana Publications 1967).
[115] Natalie Fet, *The Problem of Investment Protection under Russian Protection Sharing Agreements*, 16-SUM CURRENTS: INT'L TRADE L.J. 93, 102 (2007)(contenting that PSAs have mixed private/public contract elements but that they are closer to private contracts as they exhibit stronger contractual rights and rather limited regulatory ones).
[116] *Id.* at 105.
[117] Vitaly Timokhov, *Recent Developments in the Russian Production Sharing Agreements*, 6 UCLA J. INT'L L. & FOREIGN AFF. 365 (2002).

preferable though they may look at first blush, PSAs place the burden of financing on the shoulders of host states, which is why not many countries have resorted to PSAs.[118]

2.2.3. Infrastructure contracts

Infrastructure and utility projects are third-generation investment contracts. In the early 1990s during the period of privatization, contractual arrangements creating utilities and infrastructure emerged beyond the area of natural resources.[119] Build, operate, and own (BOO) projects epitomize these arrangements, which typically place all major benefits and risks on foreign investors.[120] With the build, operate and transfer (BOT) variant of these arrangements, foreign investors transfer at end of a certain period the entire project to the host state. Projects aimed at infrastructure construction alone take on a special form.[121]

BOOs and BOTs are often public-private partnerships (PPPs). PPPs are models for developing and financing infrastructure projects and for decreasing costs associated with these projects. Project costs are, for the public sector, the budgetary constraints and the lack of required technical expertise.[122] For the private sector, the costs include the constraints in (1) acquiring land, (2) obtaining permits and clearances, (3) securing approvals from local authorities and (4) overcoming inordinate delays caused by government organs and agencies.[123]

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[118] RUDOLPH DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 73.
[119] *Id.*
[120] *Id.*
[121] *Id.*
[122] Mark J. Riedy & Andrew Kurth, *Project Finance India 2007 – Overcoming Hurdles to Growth: Current Trends and Innovative Transactional Structures in India*, 1587 PLI/CORP 143, 161 (2007).
[123] *Id.*

Foreign investors tend to prefer BOO projects over BOOT (build, own, operate and transfer) projects for many reasons. First, BOO projects do not revert to the government at the end of the term.[124] Other reasons relate to the transfer conditions in BOOT projects. With BOOT projects, the transfer has conditions that distort the pricing of the finance, it may ultimately prove unpopular with public subscribers, and it adds complexity to the structure.[125] Finally, uncertainty exists as to whether host governments will have the desire or appropriate structures in place to take back the project in the long run.[126]

Other PPPs include:

1. BOR (build operate and renewal of concession),
2. BLT or BRT (build, lease or rent and transfer),
3. BT (build and transfer immediately),
4. BTO (build, transfer and operate),
5. DBFO (design, build, finance and operate),
6. DCMF (design, construct, manage and finance),
7. MOT (modernize, own/operate and transfer),
8. ROO (rehabilitate, own and operate), and
9. ROT (rehabilitate, own and transfer).

PPPs sometimes take on a concession form. In spite of the substitution of traditional concession agreements by PSAs in the oil sector, the concession contract form has not vanished from FDI law and practice.

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[124] Martin Amison, *Privatization and Project Finance in the Middle East*, INT'L FIN. L. REV., Nov. 1995, at 14.
[125] *Id.*
[126] *Id.*

The above presentation of the various investment contract forms adumbrates a point, which becomes evident later in this research piece, that R4I contracts are one of a kind in the sense that they do not fit any existing form of investment contracts. Instead, the dissertation describes in Chapter 6 that R4I contracts are an innovative combination of traditional mining contracts and infrastructure projects, principally BT projects. For the time being, however, the next section moves to articulate the principle which must preside over the determination of the (economic) efficiency of R4I contracts.

3. Determination of optimal clauses for R4I contracts

To be successful, investment contracts must serve and fulfill their own specific purposes and the general goals of FDI law, even if the two often overlap. Likewise, R4I contracts can be evaluated at two levels: (1) Their lesser or greater capacity to realize the contracting parties' intentions to exchange natural resources for infrastructure, and (2) their approximation or achievement of FDI goals. In addition, economic efficiency is the method by which R4I contracts best advance the ideals of the contracting parties and FDI law.[127] Economic efficiency is the most apt method to fulfill the intentions of the parties to maximize their preferences and the purposes of FDI law at the lowest cost possible. The importance of these evaluation criteria and economic efficiency is that the dissertation derives from them a test for the selection of clauses for the R4I contract model that it proposes.

[127] *See* NICHOLAS L. GEORGAKOPOULOS, PRINCIPLES AND METHODS OF LAW AND ECONOMICS: BASIC TOOLS FOR NORMATIVE REASONING 2 (Cambridge University Press 2005)(arguing that the economic analysis of law helps develop legal proposals, ascertain their consequences and assess which consequences best advance the established ideals).

3.1. The intentions of parties to R4I contracts

The acid test for the terms that must form part of the R4I contract model is whether it advances the intentions of (1) the African parties to maximize China's FDI in their mining and infrastructure sectors, and (2) the Chinese parties to import natural resources from, and build infrastructure in, Africa. Most importantly, this is also the test that ultimately determines which contract form – concession agreement, PSA, PPP or R4I – is superior.

The test does not only organize the dissertation so as to allow findings that squarely answer the dissertation's overarching purpose; it is above all party-centered, which brings the test closer to most generally accepted theories of contract law that obtain in most jurisdictions.

3.2. Investment goals

The second test for the optimal clauses of R4I contracts is their enforcement of FDI goals. Classical economic theory on FDI assumes that FDI is entirely beneficial to host economies.[128] Nowadays the (more nuanced) position is that, in view of its costs and negative externalities, FDI is on balance beneficial to host economies. Traditional FDI theory expresses the benefits of FDI in terms of increases in employment, overall domestic demand, state revenues, personal income, productive efficiency, transfer of technology, labor and managerial skills, and overseas market networks.[129]

It is fair to say that the overall goal of FDI and FDI law is to promote economic development. UNCTAD acknowledges that the paramount objective of developing

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[128] M. SORNARAJAH, *supra* Ch. 1 note 70, at 48.
[129] JAMES C. BAKER, FOREIGN DIRECT INVESTMENT IN LESS DEVELOPED COUNTRIES: THE ROLE OF ICSID AND MIGA 5 (Greenwood Publishing Company 1995).

countries in seeking of FDI is economic development.[130] *Deardorff's Glossary of International Economics* defines 'economic development' as the 'sustained increase in the economic standard of living of a country's population, normally accomplished by increasing its stocks of physical and human capital and improving its technology'.[131] Stated differently, R4I contracts should be judged by the impact that they have on economic development in the host countries in Africa.

3.3. Economic efficiency

The economic analysis of law, or law and economics, organizes and directs the fundamental inquiry of this dissertation. The fundamental inquiry is on the terms of mining contracts that could maximize the building of local infrastructure by Chinese investors and minimize the risks and costs of those investments. In a nutshell, the economic analysis of investment contracts is the methodology of the present doctoral research. The research makes use of a cost-benefit analysis in its quest to identify an optimal model for the optimization of China's FDI in the mining sectors of resource rich countries in Africa.

In order to ascertain the net effect of investment contracts and R4I contractual model proposed in this dissertation, a cost-benefit analysis is opportune. A cost-benefit analysis involves identifying and expressing the effects (i.e. costs and benefits) of investment contracts and the R4I contracts in monetary terms. It is a general assumption that the measurement of costs and that of benefits differs, but in fact both

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[130] UNCTAD, INVESTMENT AGREEMENTS VOL. I, *supra* Ch. 1 note 67, at 53.

[131] http://www-personal.umich.edu/~alandear/glossary/, Deardorff's Glossary of International Economics, http://www-personal.umich.edu/~alandear/glossary/e.html#EconomicDevelopment (last visited Sept. 17, 2009).

measurements are flip sides of the same coin.[132] Benefits would be measured by the willingness of buyers to pay for the outputs of investment contracts whereas costs would be measured by the amount of compensation required to exactly offset the negative consequences.[133]

This chapter has explored the multiple ways in which scholars understand contracts, the different roles that contract play in economic (and, to a lesser extent, social) relations, and how they can structure business deals, including those between China and African states. The four highlights are the conceptualization of contract as an exchange, the explanation of a contract law perspective on China's FDI in Africa's mines, the typology of existing investment contracts, and the test for clause selection and contract comparison. The conceptualization of investment contracts as the terms of economic exchanges has no ambition to reign as one general theory of contracts, among other competing others. It is a perspective that lubricates the analysis of R4I contracts by going around the conceptual intricacies created by the sheer diversity of legal definitions of contracts between and within common law and civil law countries.

[132] Paul R. Portney, *Benefit-Cost Analysis, in* THE CONCISE ENCYCLOPEDIA OF ECONOMICS (David R. Henderson ed. 2008).
[133] *Id.*

CHAPTER 3

CHINA'S INVESTMENTS IN AFRICA

1. Introduction and general context

1.1. Introduction

This chapter explicates the characteristics of China's FDI in Africa, with special emphasis on China's FDI in Africa's mines. The present chapter relates to the project by placing the microscope on China's FDI in Africa and pointing out where the traits of Chinese investments are carried forward in R4I contracts. The succeeding chapter relates to the dissertation's chief project – to prove the comparative superiority of the R4I contract form over traditional mining investment contracts – by elaborating upon the macroeconomic factors that drive China's investments in mining and construction in Africa.

The chapter opens by presenting the general theoretical context in which FDI from China to Africa originates and derives its overall meaning. It continues with a glimpse of the People's Republic of China (PRC) that narrows down to the PRC's economic policies and reasons for investing abroad and in Africa. That section is followed by a survey of the literature of China's economic forays into Africa. It then sketches China's investment policies in Africa. The crux of the chapter is touched upon in the next section where it describes the ordinary and distinctive features of China's FDI in Africa. Thereafter, it discusses the comparative advantages of Chinese

FDI in Africa over traditional FDI. The chapter closes with a discussion on the comparative advantages of Chinese FDI in Africa over traditional FDI.

Understanding the peculiarities of China's FDI in Africa enables the tailoring of R4I contract terms so as to make them suitable to China's FDI. Vice versa, to understand the terms of R4I contracts, policy makers in Africa also need a firm grasp of the peculiarities of China's FDI in Africa. This grasp is necessary because of the connection between the economic patterns of Chinese investments and the terms of R4I contracts. Finally, understanding the characteristics of investments from China and the economic conditions in their respective countries would also help policy makers determine how the terms of the R4I contracts should be negotiated so as to take the greatest advantage of China's increasing FDI.

1.2. The general context: South-South cooperation

The general context of China's FDI in Africa is firmly anchored in South-South economic cooperation. South-South cooperation refers to economic exchanges between countries in the Global South, that is to say between developing countries. The idea of South-South cooperation came to life after the first large-scale Asian-African conference, the Bandung Conference in 1955, and started to shape development studies in the late 1990s.[1] Since 2000, countries in the global South have organized two South summits[2] and a second Bandung Conference in 2005 in Indonesia.

South-South cooperation grew out of shared realizations that the international economic order is lopsided and that poor nations would find durable solutions to their problems in other developing countries rather than in the rich north.[3] Managing Director of the World Bank and former

[1] *See* Uche Ewelukwa Ofodile, *supra* Ch. 1 note 49, at 516.
[2] In 2000 in Havana, Cuba and in 2005 in Doha, Qatar.
[3] Chris Melville & Olly Owen, *China and Africa: A New Era of 'South-South Cooperation,'* Open Democracy July 8, 2005, *at* http://www.opendemocracy.net/globalization-G8/south_2658.jsp; Uche Ewelukwa Ofodile, *supra* Ch. 1 note 49, at 516-517.

Finance Minister of Nigeria, Ngozi Okonjo-Iweala, said that 'African countries are clear that when it comes to economic growth and transformation, China has *more* to offer that is relevant to present-day Africa.'[4] At heart, a counter-hegemonic model of bilateral relations, South-South cooperation rests on the triple bedrock of struggle, common interests and transformation.[5]

It is however mind-boggling that in practice the promotion of South-South cooperation, as a philosophy, does not rise above mere rhetoric.[6] A charitable explanation for this situation may be that the present conditions in global economic exchanges militate against the emergence of a genuine South-South cooperation praxis. The truth of the matter is that in the science of law the often touted concept of 'South-South' is under-theorized and normatively poor.[7] By way of illustration, a simple search on major legal databases such LexisNexis and WestLaw with a "South-South" query in the title field only retrieved one entry[8] as of November 8, 2009.

UNCTAD offers a decent definition of 'South-South cooperation' but remains silent on what 'South-South investment' entails. UNCTAD defines 'South-South cooperation' as the 'processes, institutions and arrangements designed to promote political, economic and technical cooperation among developing countries in pursuit of common development goals.'[9] This definition does not give any clues as to the contents of the phrases 'South-South cooperation' or 'South-South investment'. Incidentally, one of the most significant contributions of this dissertation, insofar as foreign investment law is concerned, is to add in a skeletal form the

[4] As quoted by KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 5-6. Emphasis added.
[5] Horace Campbell & Sreeram Chaulia, *Unequal Equals: Angola and China*, 13 WORLD AFF., Spring 2009, at 52.
[6] However, this fact does not mean that there are no multilateral institutional platforms for the promotion of South-South cooperation. The intergovernmental think-tank South Centre, High-Level Committee on South-South Cooperation of the UN General Assembly, the UNCTAD, the Special Unit for South-South Cooperation of the UN Development Programme (UNDP), and the Group of 77, are examples of such platforms.
[7] The very few legal analyses of South-South cooperation include Uche Ewelukwa Ofodile, *supra* Ch. 1 note 49, at 516ff.
[8] *I.e.* Craig Jackson, *Conflict Resolution – The Pre-Resolution Strategy of North-South Integration and South-South Integration,* 42 S. TEX. L. REV. 1227 (2001).
[9] UNCTAD, SOUTH-SOUTH COOPERATION, *supra* Ch. 1 note 7, at 1.

normative flesh to the barely descriptive concept ‘South-South cooperation’. The dissertation outlines a South-South investment normative framework at the end of this chapter.

Despite the rapid growth of South-South investment agreements since 1990, a significant share of outward FDI stock by developing countries in other developing countries is not covered by South-South agreements. [10] Likewise, despite the rapidly increasing FDI in mining from emergent countries, especially China and India, Africa has hardly seen any comprehensive South-South investment agreements.[11] This shortcoming implies that the vast majority of mining investment contracts between African states and their counterparts in the developing world take place outside the explicit normative framework of South-South cooperation. It also implies that African countries are in large part failing to capture the tremendous economic gains that would otherwise avail to them had their investment contracts been modeled after South-South standards. Eventually, it might lead commentators to believe that repeated mention of South-South cooperation in public declarations by African and Chinese leaders merely refer to the identity of economic partners and not to any particular, distinct mode of conducting FDI.

This chapter lodges and fixes China’s FDI within a legally prescriptive framework of South-South cooperation, the basic elements of which are presented in the chapter’s final section. Chapter 6 details the incidence of South-South cooperation norms on the R4I investment contract model proposed in this dissertation.

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[10] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), *Executive summary* to SOUTH-SOUTH COOPERATION IN INTERNATIONAL INVESTMENT ARRANGEMENTS (United Nations 2005).
[11] *Id.* at 35.

2. The People's Republic of China

2.1. Historical background

Unified in 221 BC under the Qin or Ch'in Dynasty, China had led the world in the arts and sciences for several centuries until the outbreak of civil strife, famines, military defeats and foreign occupation in the 19th and 20th century.[12] After World War II, the Communists under Mao Zedong restored China's sovereignty. At the same time, however, Mao Zedong's Communists instituted a dictatorial socialist system that intruded into and claimed the life of tens of millions of people.[13] On October 1, 1949, the People's Republic of China (PRC) was founded. 1978 was a watershed in Chinese history. From 1978 onwards, Mao's successor Deng Xiaoping and subsequent leaders embraced a market-oriented economic path.

2.2. Government

China is officially a Communist state, the world's most populated[14] country, with a civil law system and a unitary government. In reality, China is no longer a one-man Communist state. Albert Keidel describes present-day China as a 'corporate technocracy':[15]

> [China's] direction is set by the Communist Party Central Committee, with its various leadership bureaus, standing committees, subcommittees, so-called leading groups, and commissions. The Central Committee appoints and supervises implementation by management, which is China's government administration— its president, premier, and cabinet (State Council).

It would be far-fetched to qualify China as 'democratic', but China has indubitably expanded personal choice in the past few years, notwithstanding the tight political controls that still obtain in the PRC.[16]

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[12]Central Intelligence Agency (CIA), *The World Factbook : China,* https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html (last visited Sept. 27, 2009).
[13] *Id.*
[14] In July 2009, it was estimated that the Chinese total population was 1,338,612,968. *See The World Factbook : China*, *supra* note 12.
[15]Albert Keidel, China's Economic Rise – Fact and Fiction 13 (Carnegie Policy Brief No. 61, 2008), *available at* http://www.carnegieendowment.org/files/pb61_keidel_final.pdf.
[16] *The World Factbook : China, supra* note 12.

The Chinese Constitution, promulgated on 4 December 1982, is the supreme law of the land: No law or administrative rules or regulations may infringe the Constitution; and all organs, the armed forces, all political parties, all social organizations, all enterprises and all institutions must abide by the Constitution and the law.[17] The 1982 Constitution provides for four fundamental principles. These principles enjoin the Chinese people to:[18]

(1) keep to the Socialist road;

(2) uphold the dictatorship of the proletariat;

(3) uphold the leadership of the Communist party; and

(4) uphold Marxism-Leninism and Mao Zedong Thought.

The most important principles are first to uphold party leadership and then to adhere to the socialist road.[19] The ruling party in the PRC is the Communist Party of China (CPC), which is controlled by the Party's Politburo Standing Committee, composed of four to nine persons, often all older men, who make all decisions of national interest. The role of the People's Liberation Army (PLA) to enforce these decisions is crucial when crises arise.

Power in the PRC is distributed among three institutions: The CPC, the state and the army (i.e. the PLA). The CPC, with its 73 million members,[20] structures the entire country. The primary organs of state power are the National People's Congress (NPC), the President,[21] and the State Council, which is China's cabinet or highest executive body. Under the 1982 Constitution, the NPC is the highest organ of state power in the PRC. It meets each year for two weeks approximately to review and adopt major new policy directions, national legislation, the national

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[17] XIAN FA art. 5 (1982)(P.R.C.).
[18] SELECTED WORKS OF DENG XIAOPING (1875-1982) 172 (Foreign Languages Press 1984).
[19] JIANFU CHEN, CHINESE LAW: CONTEXT AND TRANSFORMATION 98 (Martinus Nijhoff Publishers 2008).
[20] Hichem Ben Yaïche, *L'Afrique, Au Coeur de la Géopolitique Chinoise,* NEW AFR., Jun. – Aug., 2008, at 18. [hereinafter Hichem Ben Yaïche, *Géopolitique Chinoise*]
[21] The incumbent as of 2009 was Hu Jintao.

budget, and major personnel changes. The Communist Party's Standing Committee enacts the majority of national legislation. The Party's Politburo Standing Committee adopts most initiatives submitted to the Standing Committee of the NPC for consideration by the State Council.

The State Council includes the Premier, a varying number of vice premiers,[22] five state councilors,[23] and 29 ministers and heads of State Council commissions. Given the lack of a vibrant opposition, the Communist Party controls government appointments. Thus, Communist party adherents occupy powerful positions in the state structure and in the PLA. Other political parties exist, but these parties, commonly referred to as 'democratic parties' do not represent a meaningful opposition or alternative to the Communist party. Nonetheless, democratic parties take part in the People's Political Consultative Conference and the National People's Congress.

The level of support that the Communist Party enjoys is high owing to the success of the Communist Party in improving the quality of life in China since the founding of the country in October 1949. However, the widening gap between rich and poor and corruption within the government leadership are some of the greatest challenges that the Communist Party faces.

2.3. Economic policies

Both pessimistic and optimistic interpretations compete to explain China's development. Collapse and threat theories are the negative interpretations. The collapse theory describes China's economic reforms as bogged down by myriad ills, such as rising inequality and corruption, declining state power and credibility.[24] The threat theory presents China's as a threat

[22] As of 2009, there were four vice premiers.
[23] Equivalent to vice premiers but with smaller portfolios.
[24] MINXIN PEI, CHINA'S TRAPPED TRANSITION: THE LIMITS OF DEVELOPMENTAL AUTOCRACY (Harvard University Press 2006); GORDON G. CHANG, THE COMING COLLAPSE OF CHINA (Random House 2001)(arguing that a deep look into China's economic apparent progress reveals that the weaknesses of the system and the long-term decline, if not collapse).

to the US and, concomitantly, to the West.[25] By contrast, the optimistic theories see China as a peaceful nation moving towards democratization, more liberalization and greater prosperity.[26]

These competing views on China's development notwithstanding, the fact remains that the Chinese economy is growing rapidly. By the year 2000, output had quadrupled. In 2007, China took over from Germany as the third largest economy.[27] In 2010, it officially claimed Japan's position as the second largest economy in dollar terms, though in 2008, China's gross domestic product (GDP) was already 3.5 trillion US dollars, the second largest after the US.[28] Even if 10 percent of the Chinese population lives below the breadline, for much of the population, living standards have improved dramatically.[29] The average monthly salary in Beijing was 485 US dollars in 2008.[30] China's economic success has engendered a new class of billionaires. At the end of 2007, there were 106 billionaires in China, as opposed to 15 billionaires at the same time the previous year.[31]

China's general success in lifting 400 million Chinese out of absolute poverty, coupled with its ability to weather the 2008-2009 financial crisis, rendered China's development model very attractive to many a developing country. In Africa, polemical discussions about the desirability of adopting the Chinese model or the so-called Beijing Consensus are common. Generally

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[25] John J. Mearsheimer, *China's Unpeaceful Rise,* CURRENT HIST., April 2006; Zbigniew Brzezinski & John J. Mearsheimer, *Clash of the Titans*, FOREIGN POL'Y, Jan./Feb. 2005; BILL GERTZ, THE CHINA THREAT: HOW THE PEOPLE'S REPUBLIC TARGETS AMERICA (Regnery Publishing Inc. 2000); MICHAEL D. SWAINE & ASHLEY J. TELLIS, INTERPRETING CHINA'S GRAND STRATEGY (Rand Corporation 2000).

[26] ZHENG BIJIAN, CHINA'S PEACEFUL RISE: SPEECHES OF ZHENG BIJIAN 1997-2005 (Brookings Institution Press 2005); BRUCE GILLEY, CHINA'S DEMOCRATIC FUTURE: HOW IT WILL HAPPEN AND WHERE IT WILL LEAD (Columbia University Press 2004); Edward Friedman, *Why China Matters*, 49 J. INT'L AFF. (1996).

[27] Geoff Dyer, *China Becomes Third Largest Economy,* FIN. TIMES (U.K.), Jan. 14, 2009 (reporting that a revision of growth figures by Chinese authorities revealed that China overtook Germany as the third largest economy in 2007).

[28] Isabel Hilton, *First City of the Future,* THE OBSERVER (Eng.), Jul. 6, 2008, http://www.guardian.co.uk/world/2008/jul/06/china.

[29] *The World Factbook : China*, *supra* note 12; Isabel Hilton, *supra* note 28.

[30] Isabel Hilton, *supra* note 28.

[31] *Id.*

speaking, the discussions pit those who advocate adopting the Beijing Consensus[32] against those who campaign for Africa to chart its own development path.[33] Of course, many debaters fall somewhere in between[34] these two extreme poles.[35] China's African Policy seems to take a middle position as it stipulates that 'common development' signifies that African countries and China work together in the exploration of the road to sustainable development.[36] The phrases 'exploration of the road to sustainable development' and 'work together' suggest that, even if Africa's road to sustainable development should be explored, the exploration of such road is a joint venture between Africa and China.

2.4. Reasons for China's FDI in Africa

Chinese FDI on the continent is multifaceted and multifactorial. Most reasons for China's FDI in Africa coincide with the reasons for FDI in general. These include the search for natural resources, markets, assets and efficiency. Likewise, China invests massively in Africa for four principal reasons: To lock in natural resources, to search for markets, to diversify its investment portfolio, and to garner support for the one China policy. The policy paper released in January 2006, China's African Policy, spells out additional reasons for China's FDI in Africa. From the Policy, mutual benefit and common development emerge as the most plausible explanations for China's FDI. Last, factors of secondary importance also explain China's FDI in the mining sectors of Africa.

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[32] Martyn J. Davies, *Special Economic Zones: China's Developmental Model Comes Africa, in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 137 (Robert I. Rotberg ed., 2008) (observing that China is exporting its development model to Africa through special economic zones); Martyn Davies, *China's Development Model Comes to Africa,* 35 REV. AFR. POL. ECON., Mar. 2008. (stating that China is exporting its development model in Africa).

[33] Most Chinese commentators and high-ranking officials maintain that China's FDI and aid to Africa is mainly aimed at enabling governments in Africa to attain self-sufficiency by finding their own development brand: *see* KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 11; ROBERT I. ROTBERG, CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 2 (Brookings Institution Press 2008) (stating that China is not interested in exporting its development model).

[34] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 11 (after explaining arguments of scholars on both poles, Ampiah & Naidu asks the question as to whether Africa has any strategies in its engagement with Africa).

[35] Joshua Eisenman & Joshua Kurlantzick, *China's Africa Strategy,* CURRENT HIST., May 2006, at 219-64 (arguing that China's engagement with Africa lacks in substance and is driven by resource needs and energy security concerns).

[36] Part III of China's African Policy.

2.4.1. Energy and natural resources

China invests in Africa to secure access to natural resources, which are vitally important for the perennity of China's economic growth. According to Chris Alden and others, the overarching driver of Chinese engagement in Africa is Beijing's strategic pursuit of resources and raw material supplies for growing internal energy needs, showing China's position as a center of global manufacturing.[37] China invests huge amounts of capital in Africa for its own survival. It desperately needs the primary resources buried beneath the soils of Africa 'to feed its massive industrial surge and – ultimately – America's substantial consumer demand.'[38] With its stunning economic growth the last 20 years, China has a constant need for raw materials, notably oil and hardwood timber.

China has enormous needs yet limited resources. It consumes 20 per cent of the world's copper, 40 per cent of the world's coal, 35 per cent of its steel, 10 per cent of its oil and 94 per cent of its aluminum.[39] Yet China has only seven per cent of the world's arable land, three per cent of the world's forests and two percent of the world's known oil reserves.[40] Apart from coal, rare earth metals and oil reserves, China is not richly endowed with natural resources.[41] In 2007, metal ferrous ore accounted for 13 percent, while oil alone represented 71 percent, of Africa's exports to China.[42] Africa accounted for one third of China's oil imports. It is to cater for its limited resources that China has integrated Africa in its economic development.

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[37] CHRIS ALDEN ET AL, *supra* Ch. 1 note 11, at 6.

[38] Robert I. Rotberg, *China's Quest for Resources, Opportunities, and Influence in Africa, in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 1 (Robert I. Rotberg ed., 2008).

[39] Regina Jere-Malanda, *La Chine et l'Afrique en Chiffres,* NEW AFR., Jun. – Aug., 2008, at 14.

[40] Adama Gaye, *supra* Ch. 1 note 8, at 12.

[41] *See* Roger C. Altman, *Globalization in Retreat: Further Geopolitical Consequences of the Financial Crisis*, FOREIGN AFF., July/August 2009, at 7.

[42] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 8.

Over the past 25 years, energy consumption in China has augmented on a 5.5 percent average, including a 15 percent rise in energy consumption for 2007.[43] As energy consumption increases, China has become more and more reliant on its own coal supplies.[44] Over the last few years 70 percent of China's energy demand has come from coal.[45] By diversifying its energy portfolio, China is no longer the hostage of coal price volatility.[46] It is a leading exporter of textile and clothing, yet it depends on the US and some African countries (Burkina Faso, Benin, Mali, Guinea, Nigeria, Togo and the Central African Republic (CAR)) for cotton.[47] Similarly, the Chinese fishing industry depends on Africa's coastal waters.[48]

The year 1993 is a milestone in China's development as it represents China's transition from an oil exporter to an oil importer,[49] the second largest after the US. Chinese national production no longer sufficed to meet the country's demand for oil and energy. China really needed to find additional energy sources. National energy considerations made Africa a strategic option in commercial and investment terms. China abandoned its Communist ideology and embarked upon a series of economic reforms, from which originates China's African strategy.[50]

2.4.2. Search for markets

China's FDI in Africa treads beyond natural resources. From China's standpoint, Africa represents a market in which it wants to gain a foothold for Chinese firms and products. With a

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[43] Asia Economic Institute, China's Investment in Africa, http://www.asiaecon.org/special_articles/read_sp/12326 (last visited Oct. 20, 2009).
[44] *Id.*
[45] *Id.*
[46] *Id.*
[47] Emmanuel Obuah, China's Investment in Africa: A Catalyst for Growth and Development or a 'Trojan Horse' for Exploitation 5 (Feb. 15, 2009)(unpublished manuscript, http://www.allacademic.com/one/isa/isa09/index.php?cmd=isa09_search&offset=0&limit=5&multi_search_search_mode=publication&multi_search_publication_fulltext_mod=fulltext&textfield_submit=true&search_module=multi_search&search=Search&search_field=title_idx&fulltext_search=China%27s+Investment+in+Africa%3A+A+Catalyst+for+Growth+and+Development+or+a+%22Trojan+Horse%22+for+Exploitation).
[48] *Id.*
[49] CHRIS ALDEN, CHINA IN AFRICA 42ff (Zed Books 2007).
[50] Adama Gaye, *supra* Ch. 1 note 8, at 12.

population of 850 million, Africa constitutes an immense market for Chinese manufactured goods and production platform for Chinese companies.[51] Chinese construction firms have penetrated local markets in Africa through close bidding on Chinese government-sponsored infrastructure projects.[52]

2.4.3. Portfolio diversification

China holds around 2.1 trillion US dollars in foreign exchange reserves.[53] It is investing part of its reserves abroad, including Latin America and Africa, in order to diversify investment risks in the face of a weakening dollar, low interest rates and an expansionary fiscal policy in the US.[54] The weakening of the US dollar and the low levels of interest rates in the US created several risks for China's 1,600 billion US dollar worth of foreign exchange reserves. Thus, in order to diversify risks, China is betting on a continent that is increasingly becoming economically attractive.[55]

2.4.4. Support for the one-China policy

Support for the one-China policy does not in itself motivate China's FDI in Africa, though China's FDI has consistently been tied to the recipient country's adherence to the one-China policy. China uses its investments on the continent to drum up diplomatic support for its position on the Republic of China, Taiwan. China still considers Taiwan its 23rd province,[56] albeit renegade.

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[51] *See* Emmanuel Obuah, *supra* note 47, at 5.
[52] CHRIS ALDEN, *supra* note 49, 13-14.
[53] Richard McGregor, *supra* Ch. 1 note 9 (reporting that foreign-exchange reserves in China reached 2.132 billion US dollars); Peter Garnham, *supra* Ch. 1 note 9 (stating that analysts estimate that 65% to 70% of China's foreign-exchange reserves are in US dollars and the rest in other currencies).
[54] China is the world's largest creditor of the US as it is the largest holder of US public debt: *See* Anthony Faiola & Zachary A. Goldfarb, *supra* Ch. 1 note 10, at DO1 (stating that the growing dependence of the U.S. on Chinese cash is granting Beijing extraordinary sway over the U.S. economy); Anthony Faiola, *supra* Ch. 1 note 10 (reporting that China's concern that the U.S. loose fiscal policy is endangering its 1 trillion U.S. dollars holding of U.S. debt).
[55] Adama Gaye, *supra* Ch. 1 note 8, at 7.
[56] *The World Factbook : China, supra* note 12.

In its African Policy, the Chinese government shows its appreciation for the fact that the overwhelming majority of African countries abide by the one China principle, refuse to have official relations with Taiwan and support China's great cause of reunification.[57] After several bilateral meetings between President Hu Jintao, many of his African counterparts re-affirmed their adherence to the one-China policy, which of necessity implies that they support and respect China's stance that China's territorial integrity extends to Taiwan. For instance, the presidents of Benin, Togo, Eritrea, Zimbabwe, and Niger, have all endorsed China's position on the status of Taiwan (see Table below for countries in Africa that severed ties with Taiwan). All told, the Chinese government is nonetheless prepared to form and develop state-to-state relations with African countries that have not yet established diplomatic ties with China on the basis of the one China principle.[58]

Table 3: The impact of the one China policy in Africa 1989-2008

Year	**Countries in Africa that broke ties with Beijing to establish ties with Taipei**	**year**	**Countries in Africa that broke ties with Taipei to establish ties with Beijing**
1989	Liberia (second)∗	1993	Liberia (second)
1990	Guinea-Bissau	1994	Lesotho (second)
1990	Lesotho (second)∗	1996	Niger (second)
1991	Central African Republic (third)∗	1998	Central African Republic (third)
1992	Niger (second)	1998	Guinea-Bissau
1994	Burkina Faso	1998	South Africa
1996	The Gambia	2003	Liberia (third)
1996	Senegal (second)	2005	Senegal (second)
1997	Chad (second)	2006	Chad (second)
1997	Liberia (third)	2008	Malawi
1997	Sao Tome and Principe		*Swaziland is the only country in Africa that has Never established diplomatic relations with Beijing*

∗ These countries had previously diplomatic relations with Taipei and have broken them to establish relations with Beijing.

Source: Deborah Bräutigam, *China's African Aid: Transatlantic Challenges* (2008) 3.

[57] China's African Policy Part III.
[58] *Id.*

2.4.5. Other reasons

There are other, less important, reasons for China's economic ventures in Africa. These include the desire to attain global stature as a central player in the world economy and finance, to reuse idle equipment,[59] to circumvent import quotas imposed on Chinese products,[60] and increasingly to feed the rising Chinese population.[61] China's FDI in Africa is a reflection of China's self-identity and growing role as a global leader in economy and finance. Its cultural and historical world view as the middle kingdom *zhongguo* (中国) supports its aim to realize international stature as a respected and great global power.[62] And to maintain this international stature, China prefers[63] the votes of African countries at the UN – the 53 African states comprise more than a quarter of the UN General Assembly –, the WTO, and other multilateral organizations.

3. The literature on China's FDI in Africa

Liters of ink have wetted the piles of papers on the influx of China's FDI in Africa. Philip Snow (2008) captures well the rising tide of studies on China's investments and other economic relations in Africa that floods the media:[64]

> [N]ow [China's presence in Africa] has become a major world issue, a burning question about which over thirty international conferences were held in 2006 alone, on which every self-respecting columnist finds it necessary to express an opinion, French ministers draw up reports and US congressmen address joint letters to the Beijing government.

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[59] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 59.
[60] *Id.*
[61] Ian Birrell, *This Massive Invasion Will Benefit the Continent*, THE INDEPENDENT (U.K.), Oct. 15, 2009, http://www.independent.co.uk/opinion/commentators/ian-birrell-this-massive-invasion-will-benefit-the-continent-1802828.html.
[62] Emmanuel Obuah, *supra* note 47, at 5.
[63] ROBERT I. ROTBERG, *supra* note 33, at 2 (saying that China prefers and has always preferred to acquire loyal friends in Africa – friends who supported its application for a permanent seat on the UN Security Council, its entrance into the WTO and its desire to host the 2008 Olympics).
[64] Philip Snow, *Foreword, in* CHINA RETURNS TO AFRICA: A RISING POWER AND A CONTINENT EMBRACE xvi (Chris Alden *et al.* eds 2008).

To oversimplify, scholars are divided as to whether China is a development partner,[65] an economic competitor or a colonizer[66].[67] What transpires almost invariably from the existing scholarship on China's FDI in Africa is the common plea that Africa adopt a strategy to forge a solid, constructive and balanced relationship with China. Thus far, however, political, economic and development analyses have been – quite understandably – shaping the discourse on China's FDI in Africa.

Alden (2005) reviews the history of the economic relations between China and Africa[68] while Gaye (2006), in addition, analyzes the political, economic and social causes of the Sino-Africa economic relations.[69] Wang (2007) provides a quantified assessment of China's multifaceted roles and influences in Africa.[70] Goldstein and others (2006) analyze the role of China and India in selected commodity and energy markets.[71] Bräutigam (1998) scrutinizes the distinctive characteristics, the relatively different impact and the different outcomes of China's aid in Africa.[72] Jenkins and Edwards (2007) investigate the impact of China and India's trade in sub-Saharan African countries.[73] Edwards and Jenkins (2005) examine the linkages between China's trade and poverty reduction efforts in Africa.[74] Kennan and Stevens (2005) identify which African countries are the biggest beneficiaries of China's investment and trade in Africa.[75] Broadman (2007) studies the policy challenges for increasing China and India's trade and

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[65] E.g. ROBERT I. ROTBERG, *supra* note 33; HARRY BROADMAN, *supra* Ch. 1 note 51; VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23.
[66] E.g. *A Ravenous Dragon: A Special Report on China's Quest for Resources*, ECONOMIST, Mar. 15, 2008.
[67] *See* CHRIS ALDEN, *supra* note 49, at 7; KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 3ff.
[68] Chris Alden, *China in Africa*, 47 SURVIVAL 147 (2005).
[69] ADAMA GAYE, *supra* Ch. 1 note 44.
[70] Jian-Ye Wang, *supra* Ch. 1 note 3.
[71] ANDREA GOLDSTEIN ET AL. THE RISE OF CHINA AND INDIA: WHAT IS IN IT FOR AFRICA (OECD Development Centre 2006).
[72] DEBORAH BRÄUTIGAM, CHINESE AID AND AFRICAN DEVELOPMENT: EXPORTING GREEN REVOLUTION (Palgrave Macmillan 1998).
[73] R. Jenkins & C. Edwards, *The Economic Impacts of China and India on Sub-Saharan Africa: Trends and Prospects*, 17 J. ASIAN ECON. 207-225 (2007).
[74] C. EDWARDS & R. JENKINS, THE EFFECT OF CHINA AND INDIA'S GROWTH AND TRADE LIBERATION AND POVERTY IN AFRICA (Department for International Development (DFID) – United Kingdom 2005).
[75] J. KENNAN & C. STEVENS, OPENING THE PACKAGE: THE ASIAN DRIVERS AND POOR-COUNTRY TRADE (Institute for Development Studies 2005).

investment in Africa.[76] Vivien Foster and others (2009) extensively document the infrastructure projects that China has been financing in Africa up until 2007 and conclude that China is the leading infrastructure financier in Africa.[77]

3.1. The statistics

The chief hurdle in sizing up China's FDI is the unavailability of comprehensive, detailed and reliable statistics. The 2007 World Bank study, *Africa's Silk Road*, notes that, despite the rapidly escalating attention devoted to African-Asian trade, systematic data available to carry out rigorous analysis on this issue is surprisingly poor.[78] Another obstacle to accurate monitoring is the fact that the Chinese government has a tradition of secrecy and is usually reluctant to publish figures for its FDI in Africa. Deborah Bräutigam noticed that:[79]

> With the Chinese declining to give any official figures for annual aid to Africa, journalists, scholars and even researchers at institutions like the World Bank and the International Monetary Fund (IMF) grabbed any figures they could find and published them as hard facts.

Further, attempts to quantify China's FDI bump against definitional differences. In fact, China has blurred the perceptible line between aid and investment, repackaging both as single major international business transactions. China has occasionally merged aid and private sector trade models.[80] In 2009, the Chinese definition of 'aid' had not yet matched that of the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD).[81] For these reasons, statistics of China's FDI in Africa must be taken with a pinch of skepticism.

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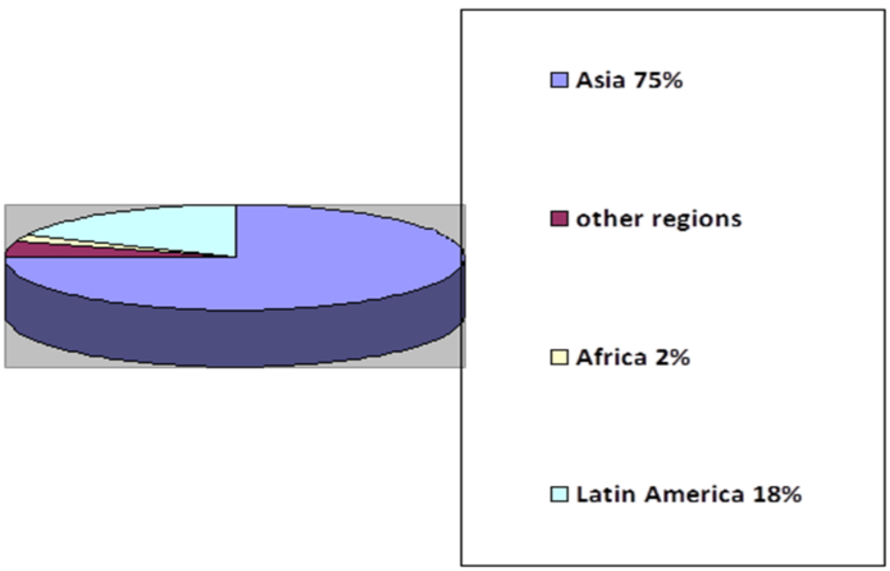
[76] HARRY BROADMAN, *supra* Ch. 1 note 51.
[77] VIVIEN FOSTER ET AL., *supra* Ch. 1 note 23.
[78] HARRY BROADMAN, *supra* Ch. 1 note 51, at 3.
[79] Deborah Bräutigam, *China's Foreign Aid in Africa: What Do We Know?*, *in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 197, 208 (Robert I. Rotberg ed. 2008).
[80] Davies J. Martyn. *Editorial.* CHINA MONITOR (S. Afr.), October 2008, at 3.
[81] Deborah Bräutigam, *supra* note 79, at 208.

In 2008, China's interest and investments in Africa and the continent's largely unexplored natural resources had increased five-fold since 2001.[82] Although statistics on China's FDI in Africa and the methodologies used to produce these statistics are variable, it is estimated that accumulated investment by Chinese firms doubled from $6.27 to almost $12 billion between 2005 and 2006.[83] On the other hand, Sino-African trade figures – which jumped from 11 billion in 2000 to more than 100 billion US dollars in 2010 – dwarf Sino-African investment figures. These figures notwithstanding, China's FDI stock in Africa is outshone by those of the UK (30 billion US dollars in 2003), the US (19 billion US dollars in 2003), and France (11.5 billion US dollars in 2003).[84]

Figure 1: Chinese outward FDI stock by region, 2004



Total: 45 billion US dollars

Source: H. Broadman, *Africa's Silk Road* (2007)

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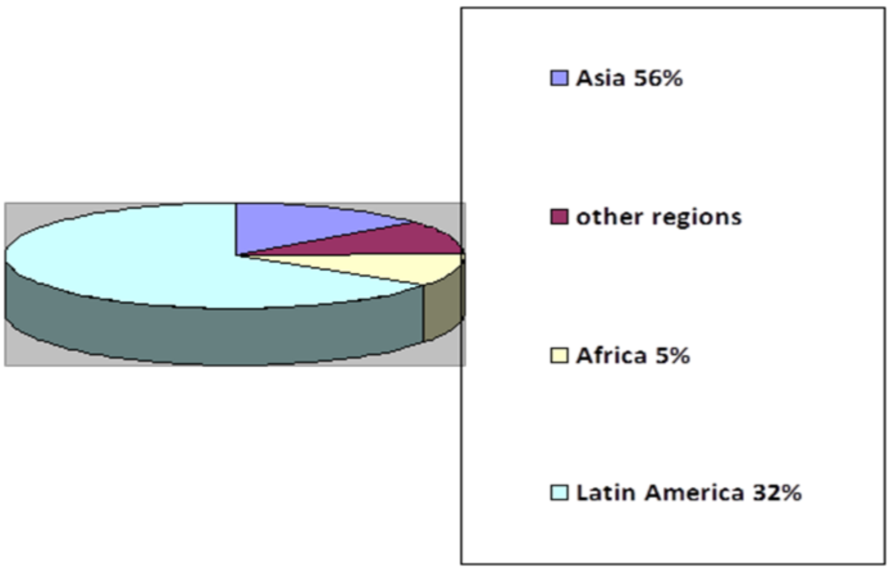
[82] AFRICAN DEVELOPMENT BANK. AFRICAN ECONOMIC OUTLOOK 2007: MEASURING THE PULSE OF AFRICA (African Development Bank & OECD Development Centre 2007).
[83] *See* DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID: TRANSATLANTIC CHALLENGES 3 (The German Marshall Fund of the United States 2008).
[84] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 18.

Figure 2: Chinese outward FDI flows by region, 2004



Total: 5.5 billion US dollars

Source: H. Broadman, *Africa's Silk Road* (2007)

The picture is rosier for China when it comes to trade in Africa. Today, China ranks as the continent's largest trading partner ahead of the US, France and Britain.[85] Between 2000 and 2006, trade between China and Africa hit a record high, surging as it did from 11 billion to 55 billion US dollars.[86] In the opening months of the year 2007, China's exports to Africa escalated

[85] *See* Stephanie Hanson, *China, Africa, and Oil*, COUNCIL ON FOREIGN RELATIONS (U.S.), Jun. 6, 2008, http://www.cfr.org/publication/9557/#p7.
[86] Hichem Ben Yaïche, *supra* note 20, at 18.

by 36 per cent whereas Africa's imports increased by 81 per cent.[87] Projections were that trade between the two regions would reach 100 billion US dollars before 2010, 10 times the trade figure in 2000.[88] China and Africa passed the 100 billion US dollar trade target in 2008 when the Chinese Ministry of Commerce (MOFCOM) announced in February 2009 that China-Africa trade had reached the 'historic' level of 106.8 billion US dollars the previous year.[89]

China's FDI to Africa, swelling though it may be, is small in comparison to China's total FDI stock (see Table 4 below).[90] In 2006, China invested more in Latin America, Asia, and Europe than it did for Africa. A few factors account for lower FDI in Africa, namely the relative lack of habit on the part of Asian firms to invest abroad; transaction and information costs are higher when investing in Africa than in other Asian economies; and constraints in both host- and home-country regulatory frameworks.[91] Nevertheless, in that same year, China invested less in North America and Oceana. China's outward FDI flows thus signal growing South-South cooperation, with China, India, Malaysia, and Singapore leading Asian outward FDI in Africa.[92]

Table 4: China's total outward FDI stock

(in millions of US dollars)

Regions	**Year 2006**
Asia	7663.25
Africa	519.86
Europe	597.71
Latin America	8468.74
North America	258.05
Oceana	126.36
Total	**17633.97**

[87] Regina Jere-Malanda, *supra* note 39, at 14.
[88] *See* DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID, *supra* note 83, at 3.
[89] *Sino-African Trade Passes $100 Bln Mark in 2008*, XINHUA (P.R.C.), Jan. 27, 2009.
[90] Leonard K. Cheng & Zihui Ma, China's Outward FDI: Past and Future, Jul. 26, 2007, http://www.nber.org/books_in_progress/china07/cwt07/cheng.pdf.
[91] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 1.
[92] *Id.* at 2.

Source: E. Obuah, *China's Investment in Africa: A Catalyst for Growth and Development or a 'Trojan Horse' for Exploitation* (2008) 8.

3.2. The 2008-2009 global financial crisis

The 2008-2009 financial crisis adversely impacted global FDI flows. FDI inflows were expected to fall from 1.7 trillion US dollars in 2008 to below 1.2 trillion US dollars in 2009.[93] UNCTAD predicted that global FDI inflows would slowly recover in 2010 at 1.4 trillion US dollars and gain momentum in 2011 at 1.8 trillion US dollars.[94] When the global financial crisis began to unravel, some analysts predicted that China's FDI would dwindle down.[95] But not only did these forecasts lack evidential backing,[96] but investments to developing and transition economies surged.[97] MOFCOM reported a 81% rise to 552 million US dollars in the first half of 2009, from the same period in 2008.[98]

3.3. Contractual frameworks

A review of legal scholarship on the question of China's FDI in developing countries shows that most studies seldom touch on contractual frameworks for investments from China to Africa but often examine investment from and to China. Debates on investments have concerned the general issue of whether and, if so, to what extent investment frameworks attract FDI. Where contractual frameworks for FDI are concerned, studies have tended to revolve around another general issue, namely whether or not states should adopt multilateral frameworks on investment.

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[93] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), WORLD INVESTMENT REPORT: TRANSNATIONAL CORPORATIONS, AGRICULTURAL PRODUCTION AND DEVELOPMENT 1 (UNCTAD, 2009).
[94] *Id.*
[95] Lydia Polgreen, *As Chinese Investment in Africa Drops, Hope Sinks*, NEW YORK TIMES, Mar. 25, 2009, http://www.nytimes.com/2009/03/26/world/africa/26chinaafrica.html.
[96] *See* Deborah Bräutigam, *China: Steaming Forward*, CHINA MONITOR (S.Afr.), July 2009, at 8, http://www.ccs.org.za/wp-content/uploads/2009/08/China-Monitor-June-2009.pdf (demonstrating how statements in the New York Times – by Lydia Polgreen (*supra* note 95) that Chinese investments were dropping – lacked evidence).
[97] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 1.
[98] *China's Direct Investment in Africa up 81% in H1,* XINHUA (P.R.C.), Aug. 18, 2009, http://www.chinadaily.com.cn/china/2009-08/18/content_8584833.htm

A brief note on multilateral investment frameworks. Kennedy (2003) considers the desirability of a multilateral framework on investment as the legal response to the economic arguments for an open investment climate.[99] Regarding the connection between legal frameworks and FDI, Franck (2007) focuses on how, if at all, investment treaties affect investment.[100] Despite the absence of any multilateral investment frameworks between China and PIRSA, Ewelukwa (2008) notes that there is a possibility of a free trade agreement between China and the Southern African Customs Union (SACU)[101] in the near future.[102]

4. China's investment policies in Africa

China implemented an efficient and effective trade policy geared towards exports that allowed it to accumulate foreign exchange reserves, estimated to amount to 1,600 billion US dollars in 2008.[103] China, which joined the World Trade Organization (WTO) in 2001, is the first exporter in the world with a trade surplus of 262.2 billion US dollars in 2007.[104] In July 2008, China emerged as Japan's top export destination for the first time since World War II, overtaking a crumbling US market in July with a spurt of demand for fuel before the Beijing Olympics.[105] In 2007, its world trade represented 2.17 billion US dollars while its trade with Africa had then reached 72 billion US dollars.[106]

[99] K. C. Kennedy, *A WTO Agreement on Investment: A Solution in Search of a Problem?*, 24 U. PA. J. INT'L ECON. L. 77 (2003).
[100] Susan D. Franck, *Foreign Direct Investment, Investment Treaty Arbitration, and the Rule of Law*, 19 PAC MCGEORGE GLOBAL BUS & DEV LJ 337 (2007).
[101] SACU comprises Botswana, Lesotho, Namibia, South Africa and Swaziland.
[102] Uche Ewelukwa Ofodile, *supra* Ch. 1 note 49, at 523.
[103] Adama Gaye, *supra* Ch. 1 note 8, at 8.
[104] *Id.* at 12.
[105] *Mainland China Has Emerged as Japan's Top Export Destination,* THE INT'L HERALD TRIB., Aug. 21, 2008, http://www.iht.com/articles/2008/08/21/business/yen.php.
[106] Adama Gaye, *supra* Ch. 1 note 8, at 12.

4.1. China's African Policy

Where FDI in Africa is concerned, China's preeminent policy document is the African Policy that China adopted on 12 January 2006. The pertinence of China's African Policy is that it discloses some characteristics of and further reasons for China's FDI in Africa. The Chinese government by its Policy 'wishes to present to the world the objectives of China's policy towards Africa and the measures to achieve them.'[107] The most important principle of Sino-African cooperation is co-development.[108]

Li Anshan, professor at the School of International Studies at Beijing University, offers a clear bird's eye view of China's African policy. Professor Li divides China's African Policy into three periods, to wit normal development (1949-1977), transition (1978-1994), and rapid development (1995 – present).[109] Certain elements of China's African policy changed whereas others remained constant.[110] The first change occurred during the first period when China's African policy shifted from forming alliances in order to fight against super powers to strengthening exchange and dialogue with Africa to find common ground while reserving differences.[111] In 1978, the International Department of the CPC began to receive more African party delegations, greatly developing Sino-African relations thenceforth by signaling that the PRC was no longer restricting its diplomatic contacts to communist states in Africa.[112] The second shift – which also started in the first period – was from an emphasis on political contact to exchanges through multiple channels.[113]

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[107] China's African Policy foreword.
[108] Li Anshan, *China's New Policy Toward Africa, in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 21, 32 (Robert I. Rotberg ed., 2008).
[109] *Id.* at 22.
[110] *Id.* at 21.
[111] *Id.*
[112] *Id.* at 23.
[113] *Id.* at 25.

The Chinese government proposes to cooperate with Africa in diverse fields in the years to come, with a view to 'promoting the steady growth of China-Africa relations in the long term and bringing the mutually-beneficial cooperation to a new stage.'[114] China also pledges to unswervingly carry forward the tradition of Africa-China friendship and develop a new type of strategic partnership with Africa, featuring political equality and mutual trust, economic win-win cooperation and cultural exchange.[115]

The most important clause of the Policy is the one that lists the five principles guiding China-Africa exchange and cooperation, and driving to lasting China-Africa relations. These principles are sincerity, equality, mutual benefit, solidarity and common development.[116] Li reminds that, even though the principle of equality has been advocated among individuals, no parties other than China make mention of it in their international relations. He therefore claims that equality (which includes respect for sovereignty and mutual benefit) is a model for international relations.[117] Another feature of China-Africa cooperation is the principle of non-interference in the internal affairs of other countries.[118]

Of the five principles of China's African policy, only mutual benefit and common development may also stand as reasons for China's FDI in Africa while the balance appears to be no more than guiding principles. The Policy explains mutual benefit as reciprocity, as China's support of African countries in their endeavor for socio-economic development and nation building, and as China's promotion of common prosperity.[119]

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[114] *Id.*
[115] China's African Policy Part III.
[116] China's African Policy Part II.
[117] Li Anshan, *supra* note 108, at 36.
[118] *Id.*
[119] China's African Policy Part III.

The Policy's sense of common development is learning from and drawing upon each other's experience in governance and development, capacity building and strengthening exchange and cooperation in education, science, culture and health.[120] In a nutshell, common development entails that China and African countries work together in the exploration of the road to sustainable development.[121] The purpose of mutual benefit and co-development is to increase Africa's ability to self-develop.[122]

In the Policy, the Chinese government encourages Chinese enterprises to participate in the building of infrastructure[123] and to develop and exploit resources rationally, with a view to helping African countries to translate their advantages in resources to competitive strength and realize sustainable development in their own countries.[124]

4.2. China in Africa

China's policies on overseas FDI matured and moved towards a more transparent and proactive policy framework.[125] From the 1980s onwards, China has adopted a strategy to penetrate African economies and formulated, then implemented, several policies that underlie its FDI in Africa. The strategy of the Chinese government rested on three legs:[126]

1. China would invest in any African state, irrespective of the state's records in human rights and the rule of law (the competitive political advantage);
2. it engages low-cost bidding based on the use of low skilled labor and management (the comparative economic advantage); and
3. it deploys intensive diplomacy and offers African states projects and low-interest development assistance (diplomacy and development assistance).

[120] *Id.*
[121] *Id.*
[122] Li Anshan, *supra* note 108, at 36.
[123] China's African Policy Part IV §2 ¶5.
[124] China's African Policy Part IIV §2 ¶6.
[125] *See* UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 2.
[126] CHRIS ALDEN, *supra* note 49, at 42ff; Emmanuel Obuah, *supra* note 47, at 3.

4.2.1. Investment policy framework

China specially designed these policies to cater for economic conditions at home and to satisfy insatiable internal demands for energy resources by prodding Chinese corporations to invest overseas. With regard to FDI in Africa, China established 11 centers for investment promotion, regularized bilateral economic trade, and it timely informs businesses about opportunities, trade regulations, market situation, trade policies, and commodity shortages in host countries.[127]

The main policy changes consisted in relaxing emigration rules, diversifying aid forms, creating specific state-owned corporations and privatizing others. In 1984, China loosened its emigration policies to among other things encourage small scale entrepreneurs to engage into trade and FDI in Africa.[128] It also announced that foreign aid would take on various forms, including aid for joint venture partnerships between Chinese companies and African companies.[129]

In 1988, the Chinese government created a state parastatal, the Chinese National Petroleum Corporation (CNPC), to secure oil agreements and exploration concession overseas with foreign companies and states. In 1994, China founded the China Construction Bank (CCB) and the China Export-Import Bank (China Eximbank), today the world's largest export credit agency, to grant funds for concessional loans to support industrial, infrastructure, and social welfare projects by Chinese enterprises operating abroad. In the late 1990s, China entered into a myriad of BITs with African states and erected several cooperation schemes, such as the Forum on China-Africa Cooperation (FOCAC) in 2000, and intergovernmental joint committees on trade and economic cooperation.[130]

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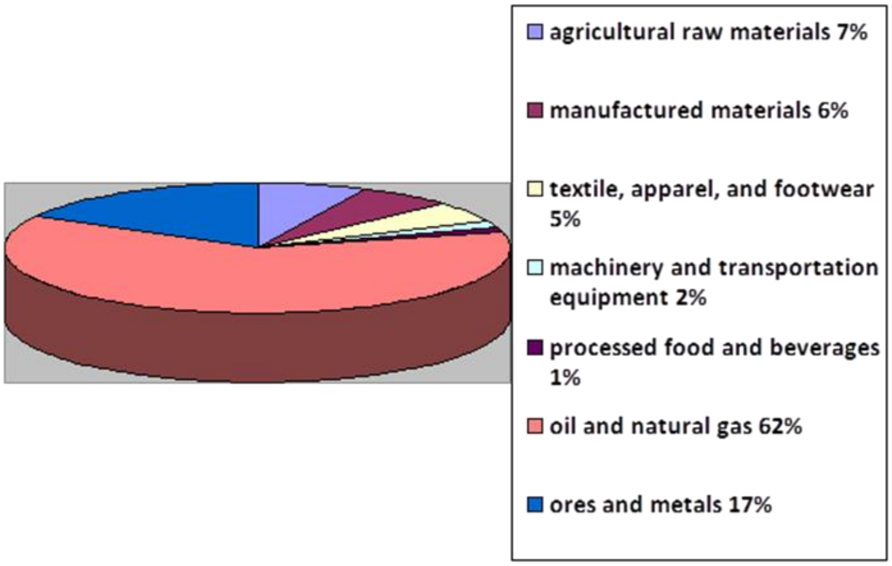
[127] Li Anshan, *supra* note 108, at 31.
[128] Emmanuel Obuah, *supra* note 47, at 3.
[129] *Id.*
[130] *Id.;* UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 2.

Then in 1997 the 15th Party Congress announced China's privatization and overseas expansion policies,[131] enshrined in the Chinese phrases *zhuada fangxiao* (privatization of grasping the large and releasing the small) and *zouchuqu* (going out), respectively.[132] Privatization consisted in selecting leading corporations across economic sectors and exhorting them to expand abroad with incentives relating to taxes, loans, credit, foreign exchange, imports and exports.

In particular, Chinese construction corporations doing projects in Africa obtained export credits for feasibility studies, guarantees for bank loans, export credits to fund operational costs of projects, and lines of credit for machinery and equipment.[133] Consequently, by the late 1990s, China's large firms started to expand their exploration investment opportunities, especially in resource rich countries in Africa, pursuant to China's industrial priorities (see distribution of China's FDI flows to Africa in Figure 3 and Table 5 below). In 2004, China's FDI in Africa converged mainly on light-manufacturing textile sector with about 64 per cent; resource-based sector (oil, timber, and mining) accounting for 28 per cent investments in the oil production; and in construction and infrastructure sectors.[134]

Figure 3: Product distribution of Africa's trade with China, 2004

[131] These included regulations on the Interim Measures for the Administration of 3 Overseas State-owned Assets in 1999; Interim Measures for Joint Annual Inspection of Overseas Investment in 2002; System of Advance Reporting on Overseas Mergers and Acquisitions in 2005; Supportive Credit Policy on Key Overseas Investment Projects in 2003, and Provisions on the Examination and Approval of Investment to run Enterprises Abroad in 2004: *see* UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 54.
[132] *Id.*
[133] B. Gill & J. Reilly, *The Tenuous Hold of China Inc. in Africa*, THE WASHINGTON Q., Summer 2007, 37, 39; UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 2.
[134] Emmanuel Obuah, *supra* note 47, at 2.



Source: H. Broadman, *Africa's Silk Road* (2007)

Table 5 Sectoral distribution of China's FDI flows to Africa 1979-2000

Sector/industry	**Number of projects**	**Investment value (millions of dollars)**
Agriculture	22	48
Resource extraction	44	188
Manufacturing	230	315
Machinery	20	16
Home appliances	36	25
Light industry	82	87
Textiles	58	102
Other manufacturing	34	86
Services	200	125
Others	3	6
Total	**499**	**681**

Source: United Nations Conference on Trade and Development (UNCTAD), *Asian Foreign Direct Investment in Africa: Towards a New Era of Cooperation among Developing Countries* (2007) 56.

4.2.2. Key Chinese institutions

Chris Alden's book *China in Africa* offers a decent rendition of key Chinese institutions in the doling out of outward FDI to host states in Africa. Alden explains that China's FDI operates on a somewhat rigid bilateral basis, folded in the public regional diplomacy setting that is FOCAC, and occasionally played out at a multilateral level.[135] This multi-dimensional, multi-level approach has bewildered observers who noted a discrepancy between the promotion in China's rhetoric of African regionalism and China's actual preference for bilateral channels.[136] Beijing has established a diplomatic consultative system in 28 countries in Africa covering a broad range of issues.[137] In short, Beijing conducts its Africa FDI policy at all levels, bilateral (primarily), regional and multilateral.

The key Chinese institutional actors in foreign trade, economic co-operation and FDI are Beijing's top executive structure, government ministries (i.e. the Ministry of Finance, the Ministry of Commerce (MOFCOM), and the Ministry of Foreign Affairs), Chinese sub-national entities and state-owned financial institutions, especially the Export Import Bank of China. It is chiefly at the bilateral level that these key institutions carry out China's resource diplomacy; tie it to China's development assistance; promote Chinese multinational firms, the opening of markets, and bilateral trade frameworks; and bring up the Taiwan recognition issue.[138] The latter item of discussion draws further strength in public declarations at the regional and multilateral levels.[139]

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[135] CHRIS ALDEN, *supra* note 49, at 27. *See* Li Anshan, *supra* note 108, at 32 (stating that a Chinese-African multilateral cooperation system is gradually emerging).
[136] CHRIS ALDEN, *supra* note 49, at 27.
[137] Li Anshan, *supra* note 108, at 32.
[138] CHRIS ALDEN, *supra* note 49, at 28.
[139] *Id.*

a) Beijing's top executive structure

Beijing's top executive structure formulates the broad parameters of China's FDI to Africa. This structure is composed of the CPC leadership, the Politburo and its subcommittees, also known as the Leading Small Groups.[140] Major initiatives and strategic shifts in policies emanate from Beijing's top executive structure.[141] The State Council's National Development and Reform Commission is a crucial link in the policy formulation chain. The function of the Commission is to design long-term macroeconomic strategies and focus China's energy security.[142]

b) Chinese government ministries

A few key Chinese ministries play an initial and central role in foreign assistance and economic co-operation, including FDI. The State Council looks over these ministries to ensure they implement Beijing's foreign assistance, economic co-operation and FDI policy. The Chinese Ministry of Finance prepares the entire budget for foreign aid. It is the Ministry of Commerce (previously known as the Ministry of Foreign Trade and Economic Cooperation), through its Department of Foreign Aid, that plans, monitors and manages funds and their disbursement.[143] An economic councilor in the Chinese embassy administers and oversees foreign aid and FDI in each individual host country.[144]

c) Chinese sub-national entities

China's FDI policy-making is decentralized in the sense that Chinese provinces and municipalities also initiate and enter into investment agreements with African countries or their sub-national constituents. This decentralization originates from China's opening as a result of reforms in the late 1970s.[145] Beijing afforded provincial and municipal authorities special

[140] *Id.*
[141] *Id.*
[142] *Id.*
[143] *Id.* at 23-24.
[144] *Id.*
[145] *Id.* at 29.

privileges, policy concessions and financial assistance as incentives for FDI and foreign trade.[146] This development led to the emergence of provincial firms from renovated state-owned corporations, with a clear business orientation and financial resources made available for FDI.[147] Occasional tensions between the central government in Beijing and local authorities, with the latter sometimes prioritizing local interests over national ones in the pursuit of economic gains, raise the prospects of dissonance boiling over in foreign policy goals and implementation.[148]

d) State-owned financial institutions

The Chinese government founded the Export Import Bank of China (China Eximbank) in 1994. With enough financial assets to outgun the World Bank, China Eximbank, the world's largest credit agency[149] and one of China's three policy banks under the State Council,[150] is the single biggest financing conduit for Chinese projects and R4I contracts in Africa.[151] China Eximbank is a linchpin of China's FDI policy and outflows to Africa. Its principal activities are to accompany Chinese businesses by granting finance export credit and international loans for overseas construction and FDI, and offering official lines of credit.[152]

The Bank has sought to establish working relationships with regional and continental banks, such as the African Development Bank (AfDB) and the East African Development Bank. Out of the AfDB annual meeting in Shanghai in 2007, China Eximbank and the AfDB have considered co-

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146 *Id.* at 29-30.
147 *Id.* at 30.
148 *Id.*
149 CHRIS ALDEN ET AL, *supra* Ch. 1 note 11, at 16 (stating that China Eximbank is the world's largest credit agency); *contra* Drew Hinshaw, *Obama in Africa: Can the US Rival China's New Clout?*, CHRISTIAN SCI. MONITOR, July 19, 2009, *at* http://www.csmonitor.com/2009/0710/p90s01-woaf.html. (stating that China Eximbank is the world's third largest agency).
150 Agricultural Development Bank of China (ADBC), China Development Bank (CDB) and China Eximbank are the three policy banks established in 1994 and subsidized by the Chinese government to carry out government directives in state-invested agricultural, infrastructure and trade projects.
151 CHRIS ALDEN ET AL, *supra* Ch. 1 note 11, at 17 (stating that China Eximbank would be the single biggest financing agency for Chinese projects in Africa during the 2007-2010 period).
152 *Id.* at 24.

financing and parallel financing of projects.[153] In comparison to the financial institutions in the US, Japan and Britain lending to states in Africa, China Eximbank boasts a much larger portfolio, entrusted with 15 billion US dollars in support of a series of projects in 2005, thirty times greater than that of its nearest rival.[154] Nevertheless, the bank is said to depart from OECD 'best practices' by snubbing environmental impact and social standards for projects.[155] However, in contradistinction to bilateral and multilateral Western lending institutions, China Eximbank is more flexible, less risk averse and responsive to the demands of the elites in African governments.[156]

In 2006, the President of the China Eximbank, Li Ruogu, said that he expected the Bank to disburse up to 20 billion US dollars over the next three years.[157] The secrecy and lack of transparency about Chinese finance stoke up fears that Chinese banks are 'free-riding' by extending loans to low income countries newly freed of crippling debt.[158]

In addition to China Eximbank, China has raised from the ground other financial institutions to channel finance projects that it sponsors in Africa. The Industrial and Construction Bank of China (ICBC), the world's largest bank by market capitalization, made the headlines in October 2007 when it purchased a 20 percent stake in South Africa-based Standard Bank, Africa's largest bank, for 5.6 billion US dollars.[159] Half of the stake that ICBC purchased from Standard Bank consisted of existing shares and the other half consisted of new shares while the entire 20 percent stake makes ICBC the single largest shareholder of Standard Bank. This Chinese portfolio investment in Standard Bank is strategic as Standard Bank operates in 18 countries in Africa. The great strategic value of China's investments in Standard Bank is evident from the fact that

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[153] *Id.* at 25.
[154] *Id.*
[155] *Id.*
[156] *Id.* at 25.
[157] DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID, *supra* note 83, at 3.
[158] *Id* at 4.
[159] *ICBC Cooperates with Standard Bank on 65 Projects*, CHINA DAILY (P.R.C.), May 25, 2009.

ICBC has used Standard Bank to finance 65 projects in Africa, most notably the Morupule B power station in Botswana, Africa's largest power station as of 2010.[160] ICBC has been pursuing its joint venture strategy with Standard Bank to strike structured project finance deals and to expand into retail banking.[161]

In March 2009, an equity fund that China set up to provide finance to Chinese corporations operating in Africa, the China-Africa Development Fund (CADF), opened its first representative office in Johannesburg, South Africa. China initially endowed CADF with 1 billion US dollars when it established CADF on 26 June 2007, but the total endowment is 5 billion US dollars, to be achieved gradually.[162] In May 2010, CADF signed a Memorandum of Understanding (MOU) for establishing a CADF regional office in Zambia for Central and East Africa.[163] The opening of a CADF regional office for Central and East Africa is a positive development in China-Africa relations and another piece of evidence of China's expanding finance in Africa.

4.2.3. Forum on China-Africa Cooperation

China created a cooperation scheme and platform, the Forum on China-Africa Cooperation (FOCAC), to discuss trade and investment issues with African states. Parties to the discussion often talk about the benefits and rewards of regional economic co-operation. The culmination of China's regional diplomacy in Africa and modeled after the Franco-African Summit,[164] FOCAC is an offspring of China's strategy of 'going global' (*zouchuqu*).[165] FOCAC is an integral part of China's larger 'summit diplomacy' with Africa. Summit diplomacy is admittedly unique to

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[160] *Id.*
[161] Chris Alden & Riaan Myer, *Unveiling the Diversity of Chinese Finance in Africa*, PAMBAZUKA, Feb. 11, 2010.
[162] China Africa Development Fund, The Company's Overview, http://www.cadfund.com/en/Column.asp?ColumnId=13 (last visited May 17, 2010).
[163] *Zambia President Banda Lauds China*, LUSAKA TIMES (Zambia), May 12, 2010.
[164] CHRIS ALDEN, *supra* note 49, at 30 (stating that the origins of FOCAC are in dispute. Some Chinese diplomats claim that they responded to African appeal while others suggest that it had more to do with the array of Africa events that characterized the latter days of the Clinton administration).
[165] DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID, *supra* note 83, at 8.

China-Africa relations in that Africa has not had such summit diplomacy with any other country, neither has China enjoyed such diplomacy with any other continent.[166]

To date, four FOCAC summit meetings with African states took place in 2000 (Beijing, China), 2003 (Addis Ababa, Ethiopia), 2006 (Beijing, China), and 2009 (Sharm el-Sheikh, Egypt). At those meetings, Chinese leaders have confirmed China's ambition to consolidate consultation and cooperation; and to promote political dialogue and economic cooperation with African countries to seek mutual reinforcement and common development.[167] They christened this cooperation 'a new strategic partnership' at the FOCAC summit in 2006.[168] The most dazzling facet of FOCAC is its standardized cooperation mechanism with its follow-up actions.[169]

In November 2006, for two days heads of states and foreign ministers from 48 African countries met in Beijing with Chinese President Hu Jintao at a summit on trade and investment. At the summit, China unveiled plans to build three to five special economic zones (SEZ) across the continent.[170] President Hu Jintao pledged to:[171]

1. double its 2006 assistance to Africa by 2009;
2. provide 3 billion US dollars of preferential loans and 2 billion US dollars of preferential buyer's credits to Africa in the next three years;
3. set up a China-Africa development fund which will reach 5 billion US dollars to encourage Chinese companies to invest in Africa and provide support to them;

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[166] Li Anshan, *supra* note 108, at 35-36.
[167] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 7.
[168] *Id.*
[169] Li Anshan, *supra* note 108, at 36.
[170] *Id.* at 9.
[171] DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID, *supra* note 83, at 3. In 2009, Hu Jintao pledged to double its assistance to 10 billion US dollars for 2010.

4. build a conference centre for the African Union (AU) to support African countries in their efforts to strengthen themselves through unity and support the process of African integration;
5. cancel debt in the form of all the interest-free government loans that matured at the end of 2005 owed by the heavily indebted poor countries (HIPC) and the least developed countries (LDCs) in Africa that have diplomatic relations with China;
6. further open up China's market to Africa by increasing from 190 to over 440 the number of export items to China receiving zero-tariff treatment from the LDCs in Africa having diplomatic ties with China;
7. establish 3 to 5 trade and economic cooperation zones (ECZ) in Africa in the next three years; and
8. over the next three years, train 15,000 African professionals; send 100 senior agricultural experts to Africa; set up 10 special agricultural technology demonstration centers in Africa; build 30 hospitals in Africa and provide 300 million RMB of grant for providing artemisinin and building 30 malaria prevention and treatment centers to fight malaria in Africa; dispatch 300 youth volunteers to Africa; build 100 rural schools in Africa; and increase the number of Chinese government scholarships to African students from the current 2000 per year to 4000 per year by 2009.

At the 2006 summit, Chinese firms and African governments and businesses signed upwards of a dozen investment agreements. The agreements were worth 1.9 billion US dollars and covered sectors such as resource extraction, infrastructure and manufacturing.[172] Some elements of these pledges are accomplished through R4I contracts.

4.3. China's investments in Africa

[172] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 9.

China invests dozens of billions of US dollars in African countries. In the words of Harry Broadman, the accelerating trend of economic exchanges between African countries and China is one of the most significant features of the current global economy and the 'vanguard' of South-South commerce in the 21st century.[173] The demand for mineral and natural resources by China and a few other emerging economies like India and Brazil has hiked up the price of commodities such as copper, iron, gold, oil and cement. This increased demand in the world's commodity markets resulted in commodity prices becoming competitive once again, which in turn prevented in more than one African country the closure or restructuration of steel factories and state subsidization of minerals.

China's presence on the continent, which dates back to the 1950s,[174] has been rapidly increasing in recent years. There are more than 800,000 Chinese living and working in Africa.[175] There are more than 1,000 Chinese small and medium-sized companies involved in manufacture.[176] By 2007, there were over 800 Chinese companies, including private individuals, medium and large state-owned enterprises (SOEs) doing meaningful business in Africa.[177] At the same time, 'Chinatowns' are mushrooming on the continent.

The growing presence of China in virtually all African countries also translates a corresponding growing importance of Africa for China's geopolitics. Since 1991, it has become a tradition for China's foreign affairs minister to visit African countries every January every year.[178] President Hu Jintao visited 17 African countries between 2006 and 2007. No foreign head of state ever paid as many visits to Africa as President Hu Jintao.[179]

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[173] Harry G. Broadman, *Chinese-African Trade and Investment: The Vanguard of South-South Commerce in the Twenty-First Century, in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 87 (Robert I. Rotberg ed., 2008).
[174] DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID, *supra* note 83, at 7; Adama Gaye, *supra* Ch. 1 note 8, at 8.
[175] Adama Gaye, *supra* Ch. 1 note 8, at 8.
[176] *Id.*
[177] Emmanuel Obuah, *supra* note 47, at 3.
[178] Adama Gaye, *supra* Ch. 1 note 8, at 10.
[179] Regina Jere-Malanda, *supra* note 39, at 14.

The principles of China's policy in Africa, and in the third world generally, are based on the Five Principles of Peaceful Coexistence:[180]

- Equality and mutual benefit
- Aid without conditions or conditionalities;
- Non-interference in each other's internal affairs;
- Mutual respect for national sovereignty and territorial integrity; and
- Primacy of the state in the conduct of political and commercial relations.

Outlined in 1963 when China's Prime Minister Zhou Enlai visited Africa,[181] these principles have always been a basic component of China's engagement with Africa, shaping the way China positions itself vis-à-vis the West.[182] Then, in 1982, China's Prime Minister Zhao Ziyang put forth a new form of cooperation with Africa, favorable to both parties and marking the beginning of China's 'win-win' policy.[183] China's 'win-win' policy ushered in a new era of pragmatism that is today at the center of China's presence in Africa.[184] This pragmatism is also visible in the results produced by R4I contracts. Bo Xilai, China's Minister of Commerce, put it as follows: China will help African countries gain economic independence, broaden their bilateral cooperation, and meet the goals of mutual benefit and common prosperity.[185]

5. Characteristics of China's FDI in Africa

In order to understand the contract terms of R4I contracts and to tailor legal principles for a policy framework suitable to China's FDI, this section identifies the peculiarities of China's FDI

[180] Adama Gaye, *supra* Ch. 1 note 8, at 9; KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 7.
[181] *Id.*
[182] DEBORAH BRÄUTIGAM, CHINA'S AFRICAN AID, *supra* note 83, at 7.
[183] Adama Gaye, *supra* Ch. 1 note 8, at 9.
[184] *Id.*
[185] Regina Jere-Malanda, *supra* note 39, at 14.

in African countries. Li Anshan sums up the characteristics of China-Africa economic relations as 'summit diplomacy, equality, co-development and cooperation.'[186] These characteristics are pertinent to R4I contracts because, by exchanging natural resources for national infrastructure, the parties cooperate through R4I contracts in order to ensure co-development and mutual benefits.

China's investment practices in the region are particular in more than one respect. The particularity of China's investment practices ranges from the role of Chinese culture in contract-making,[187] to their conception of law and dispute resolution,[188] to the comparatively broad-based nature of their investments.[189]

5.1. Concentration on resource extraction

China's FDI concentrates on resource extraction, and that is why R4I contracts always involve natural resources and Chinese FDI is clustered in resource rich countries in Africa (see Table 6 below).

Table 6: Product and geographic concentration of Africa's trade with China, 2002-2004 averaged[190]

	Exports to China	Imports from China
Product concentration	0.40 (+0.25)[191]	0.02(+0.01)
Geographic concentration	0.17 (+0.09)	0.09 (+0.05)

[186] Li Anshan, *supra* note 108, at 35.
[187] John H. Matheson, *Convergence, Culture and Contract Law in China*, 15 MINN. J. INT'L L. 329 (2006).
[188] WERNER F. MENSKI, COMPARATIVE LAW IN A GLOBAL CONTEXT: THE LEGAL SYSTEMS OF ASIA AND AFRICA 447-465 (Platinium Publishing Ltd. 2000); PETER DE CRUZ, COMPARATIVE LAW IN A CHANGING WORLD 204 (Cavendish Publishing 1999).
[189] HARRY BROADMAN, *supra* Ch. 1 note 51, 2.
[190] The Herfindahl-Hirschman index is an economic concept and a concentration ratio widely applied in antitrust law to measure the size of a firm relative to the industry. It is used in Table 6 (1) to identify the geographical patterns of Africa's exports to and imports from China, and (2) to measure the level of product concentration between Africa's exports to and imports from China. The higher the value of the index, the greater the level of concentration.
[191] Figures in parentheses are the difference in index figures from those based on Africa's trade with the world.

Source: H. Broadman, *Africa's Silk Road* (2007).

Table 7: Major recipients of China's FDI 2003-2006 (in million dollars US)

countries	**2003-2006**
Sudan	357.83
Algeria	197.48
Nigeria	191.01
South Africa	114.88
Zambia	105.36
D.R. Congo	53.77
Equatorial Guinea	32.73
Ethiopia	30.39
Egypt	29.98

Source: E. Obuah, *China's Investment in Africa: A Catalyst for Growth and Development or a 'Trojan Horse' for Exploitation* (2008) 10.

5.2. State-owned corporations

One of the most visible aspects of FDI from China in Africa is the quasi-omnipresence of Chinese state-owned corporations, albeit most Chinese firms in Africa are small and medium enterprises (SME).[192] The Chinese parties to R4I contracts are almost in all instances stated-owned corporations. Even if Chinese private corporations have recently – timidly yet gradually – started to compete with state-owned corporations, state-owned corporations spearhead China's quest for African markets. State-owned corporations purvey FDI from China and have long-term time horizons. In 2005, they represented more than 83 per cent of China's global flow and stock of FDI.[193] They are owned or associated with the Chinese government, especially the large corporations managed by the government ministries and agencies.[194] By contrast, the vehicles of

[192] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 2.
[193] Leonard K. Cheng & Zihui Ma, *supra* note 90, at 10.
[194] Emmanuel Obuah, *supra* note 47, at 10.

FDI from Europe and North America are privately-owned corporations, and characteristically have relatively short time-horizons.[195]

Table 8: Major Chinese corporations in Africa

Corporations	**Sectors**	**Major countries of operation**
Alcatel Shanghai Bell (ASB)	Telecommunication	South Africa, Nigeria, Angola
ZTC Corp.	Telecommunication	Egypt
Huawei Technologies	Telecommunication	Nigeria, Kenya, Egypt, Tunisia
China National Petroleum Corp. (CNCPC)	Petroleum	Sudan, Nigeria
PetroChina	Petroleum	Nigeria
China National Petrochemical Corp. (SINOPEC)	Petroleum	Gabon, Angola, Sudan
China National Oil Offshore Corp. (CNOOC)	Petroleum	Nigeria
Henan Gouji	Tourism	Sierra Leone
Shanghai Audio and Video Electronic Co.	Manufacturing/ electronics	South Africa
China Jiangsu Changzhou textile Corp. (a Sino-Tanzanian joint venture)	Manufacturing/ Textile	Tanzania
Shanghai Huayuan Group Corp. (local subsidiary of Enitex Co. Ltd.)	Manufacturing/ Textile	Nigeria
China Road and Bridge Corp. (CRBC)	Construction	Angola
China Complant	Turn-keys projects Financed by Chinese Government	Many countries in Africa

Source: E. Obuah, *China's Investment in Africa: A Catalyst for Growth and Development or a 'Trojan Horse' for Exploitation* (2008) 9.

5.3. Equity joint ventures

Equity joint ventures with local firms are the main form of China's FDI flows into African economies.[196] Joint ventures are vehicles that give Chinese investors access to local contracts and

[195] *Id.*

to resources that are exclusively restricted to local firms.[197] Many Chinese investments carried through R4I contractual arrangements involve joint ventures between a national resource company of the host country and a state-owned Chinese company or a consortium of Chinese state-owned companies.

5.4. State-to-state business model

The state-to-state business model that characterizes China's FDI and R4I contracts in Africa is in large measure responsible for the success of Sino-African joint ventures. Beijing's support for Chinese state-owned corporations has been decisive in directing FDI in Africa, as opposed to other regions.[198] Alden and others point that the dramatic upsurge of China's FDI in the mining sectors of Africa is due to the support of the Chinese central government[199] and the dynamic financial mattress provided by Chinese state-backed banks.[200]

The state-to-state business model typical of China's FDI in Africa has lessons for conventional wisdom and debates on the effectiveness of investment contract clauses in attracting FDI.[201] To recall, conventional wisdom is that BITs have been successful in both promoting and protecting foreign investment,[202] but a few scholars contend that the empirical evidence on the effect of BITs on FDI is weak.[203] The state-to-state model suggests that it serves the promotion and protection of Chinese FDI in Africa more effectively than BITs, though China has also signed BITs with many countries in Africa. That said, while there are differences between the state-to-

[196] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 59.
[197] Emmanuel Obuah, *supra* note 47, at 11.
[198] CHRIS ALDEN ET AL, *supra* Ch. 1 note 11, at 7.
[199] *Id.*
[200] *Id.* at 16.
[201] On the effectiveness of BITs in attracting FDI, *see* generally KARL P. SAUVANT & LISA E. SACHS EDS. THE EFFECT OF TREATIES ON FOREIGN DIRECT INVESTMENT: BILATERAL INVESTMENT TREATIES, DOUBLE TAXATION TREATIES, AND INVESTMENT FLOWS (Oxford University Press 2009).
[202] *See* e.g. J.W. Salacuse & N.P. Sullivan, *Do BITs Really Work?: An Evaluation of Bilateral Investment Treaties and their Grand Bargain*, 46 HARV. INT'L L.J. 67 (2005).
[203] J.W. Yackee, *Are BITs a Bright Idea? Exploring the Ideational Basis of Investment Treaty Enthusiasm,* 12 UC DAVIS J. INT'L L & POL'Y 195 (2005).

state model used by Chinese investors and traditional international project finance structures, both rely and depend on state involvement, usually through the grant of a concession.[204]

Progress made by Sino-African joint ventures can partly be attributed to high-level visits by government and business leaders, the China-Africa Cooperation Forum, bilateral agreements, joint intergovernmental committees and cooperation between African and Chinese enterprises.[205] The imprint of the Chinese government is visible in the weak reporting requirements imposed on Chinese firms and their observable willingness (as government-owned or managed firm) to operate at a loss.[206] More specifically, the Chinese government subsidizes Chinese construction firms that are awarded state-sponsored infrastructure projects, that dominate China Eximbank's portfolio and that operate at margins which, absent the state's role, would not be commercially viable.[207]

Engaging African countries through state-to-state agreements is an outgrowth of the recognition, coupled with the realization of the dangers of political instability from sources in the Middle East, that China's economic survival hinges on its access to energy and critical natural resources.[208]

5.5. Strengths of China's FDI

Chinese investors and investments have a number of characteristics that make their actions on the continent very effective, some of which apply to R4I contracts as well. Among other characteristics, are the discipline, the industriousness and the good organization of Chinese investors.

[204] Phone interview with Elke Rehbock, Associate, Greenberg Traurig (May 3, 2010)(explaining that project finance has always implied some kind of state involvement).
[205] UNCTAD, ASIAN FDI, *supra* Ch. 1 note 39, at 2.
[206] CHRIS ALDEN, *supra* note 49, at 24.
[207] *Id.*
[208] CHRIS ALDEN, *supra* note 49, at 12.

5.5.1. Substantial financial flows

China injects sizeable funds into African economies through traditional and R4I investment contracts. It is indeed the first time since the wave of independence in the 1960s that Africa as a continent is the beneficiary of such high volumes of investments, trade, or credit with low interest rates.[209] In that connection, Alex Vines and others claim that China is less cautious and less risk averse than democratic Asian countries operating in Africa like India because China is not democratic.[210] On China's economic engagement with Africa, Robert Rotberg noticed that China:[211]

> constructs or refurbishes roads and railways, creates export processing zones, supplies equipment, and builds up national industrial bases. Where sub-Saharan African nation-states are particularly fragile or questionably ruled, China also supplies arms and military firepower, builds barracks, provides uniforms, and various types of technical assistance, army to army. Never have the economies of sub-Saharan Africa grown so rapidly.

In 2005, China promised Angola a two billion US dollar loan to repair Angola's infrastructure. In 2006, China added another billion US dollars to the loan it granted to Angola. There is little doubt that these substantial investments helped African countries extirpate themselves from the global economic recession.

5.5.2. Sustainable growth rate

In recent years, the average annual growth rate of FDI flows to Africa was 17 percent, comparable to the 20 percent growth rates in China.[212] By the end of 2006, China's total investment in Africa amounted to over 11 billion US dollars.[213] After years of growth spurts

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[209] Joshua Kurlantzick, Beijing's Safari: China's Move Into Africa and its Implications for Aid, Development and Governance 5 (Carnegie Endowment for International Peace, 2006); ROBERT I. ROTBERG, *supra* note 33, at 1; Regina Jere-Malanda, *supra* note 39, at 14.

[210] ALEX VINES *ET AL.*, *supra* Ch. 1 note 28.

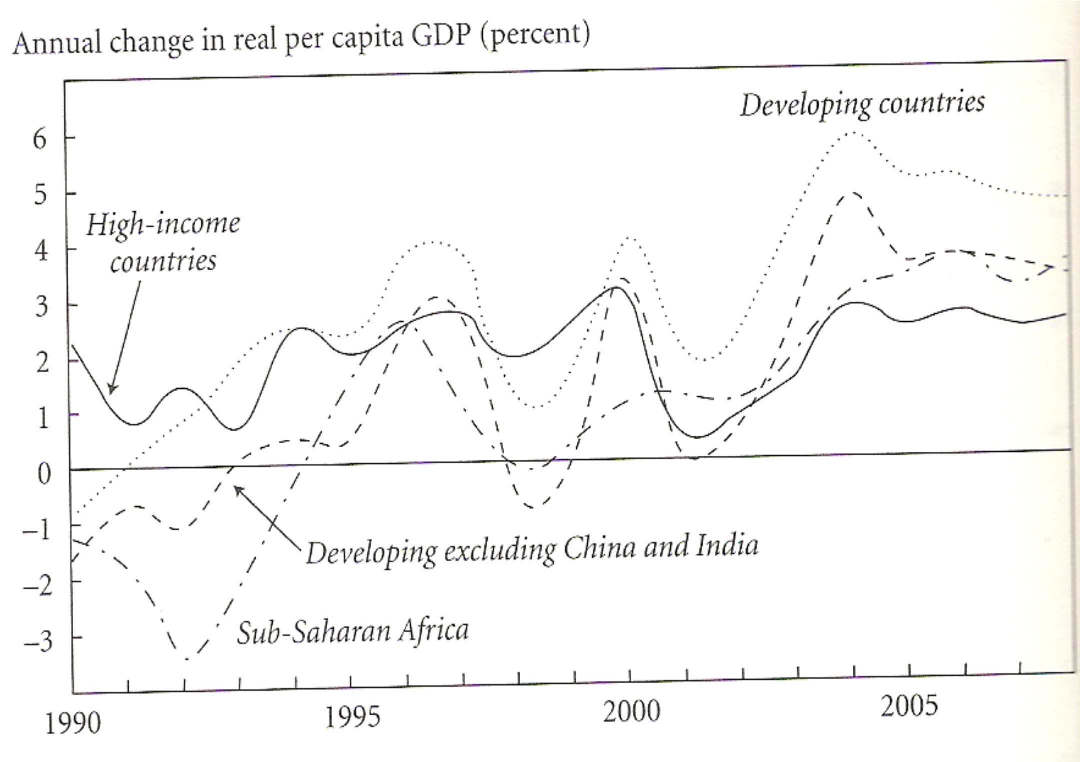
[211] Robert I. Rotberg, *supra* note 38, at 1-2.

[212] Harry G. Broadman, *supra* note 173, at 94-95.

[213] Stephanie Hanson, *supra* Ch. 1 note 5.

succeeded by downturns, Africa now appears to have broken that cycle and to be growing at a sustainable rate.[214] In the decade before 2008, the continent grew at an average rate of 5.4 percent in tandem with the rest of the world (see Figure 4).[215]

Figure 4: Per capita incomes of Africa increasing with other developing countries



Source: H. Broadman, *Chinese-Africa Trade and Investment, in* R. Rotberg, *China into Africa* (2008) 92.

This picture of a 'growing Africa,' where there are emerging economic success stories runs counter to conventional wisdom.[216] Even though it is yet to be established that R4I contracts bring about sustainable economic growth, the infrastructure built in terms of R4I contracts is a prerequisite for sustainable growth.

[214] Harry G. Broadman, *supra* note 173, at 89.
[215] *Id.*
[216] *Id*.

5.5.3. Broad base

China's FDI is diverse and cuts across several sectors of African economies. Likewise, R4I contracts cut across mining and infrastructure sectors. Even if China directs the bulk of its FDI to mining, Beijing also pumps its money into infrastructural construction, telecommunication, agro-processing, power generation, manufacturing, tourism, national defense,[217] in disparate African countries. China's fast modernizing industries and expanding middle class with rising incomes and purchasing power, push up demand not only for Africa's traditional exports of extractive and raw agricultural commodities but also for the continent's non-traditional exports, such as processed commodities, light manufactured products, household consumer goods, and tourism. [218]

The breadth of Sino-African economic relations is also apparent in areas other than trade and investment, like contract business, labor service, and consultant services, all of which are fast flourishing.[219] At the end of 2004, MOFCOM approved 715 non-financial projects.[220]

5.5.4. Competitiveness

China, through its FDI and its firms, tries to help host countries in Africa build projects which require less investment while yielding quicker results. Chinese FDI and firms are generally very competitive. R4I contracts have a strategic advantage over ordinary investment contracts in that the package of resource and infrastructure investments that it offers have made them more attractive to some African leaders. Former Nigerian President Olusegun Obasanjo reportedly said that, if in the middle of planning a bidding round for the sale of oil blocks, Nigeria felt the need

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[217] On China's military and security assistance to African countries, see David H. Shinn, *Military and Security Relations: China, Africa, and the Rest of the World, in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 155 (Robert I. Rotberg ed., 2008).
[218] Harry G. Broadman, *supra* note 173, at 88.
[219] Li Anshan, *supra* note 108, at 31.
[220] *Id.*

to have good economic relations with another country that promised to undertake major infrastructure projects, Nigeria had the 'sovereign right to do the [oil-for-infrastructure] package.'[221]

However, the claim that R4I contracts are attractive and competitive packages should be qualified. A cut should be drawn between the competitiveness of China as a resource and infrastructure investor and the inherent advantages of R4I contracts as a model for foreign direct investment.[222] Some resource or infrastructure investors will not be able to employ R4I contracts and, even if they could, it is uncertain whether they would be able to produce outcomes comparable to those China produced in Africa. In short, the use of R4I contracts alone may not be sufficient to guarantee certain outcomes. Nevertheless, this realization does not deduct from the focus and contribution of this dissertation because the dissertation does not propose R4I contracts as a model for optimizing FDI from *any* investor but from *China*.

In the construction sector, the Financial Times reported in January 2008 that Chinese construction firms had won 50 percent of all new public works projects in Africa, edging out competitors with higher overheads.[223] China has displaced European, American and Japanese diplomatic and economic interests in many African countries where they were present, and winning influence in countries where Western investors were absent.[224] The expeditiousness of Chinese investors gives China a competitive edge over Africa's traditional partners. Senegal President Abdoulaye Wade wrote that:[225]

> I have realized that one could in three months sign with the Chinese an agreement that could take five years of negotiations with the World Bank.[226]

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[221] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 14.
[222] Interview with Nicolas van de Walle, Professor in the Government Department at Cornell University (May 6, 2010).
[223] William Wallis, *Drawing Contours of a New World Order*, FIN. TIMES (U.K.) (special report) Jan. 24, 2008, at 1.
[224] *See* ROBERT I. ROTBERG, *supra* note 33, at 2-3.
[225] Abdoulaye Wade, *L'Occident a Beaucoup à Apprendre!,* NEW AFR., Jun. – Aug., 2008, at 13.
[226] Author's own translation.

President Wade also praised China for being less formalistic.

Chinese investors are generally noted for their discipline, industriousness and good organization. The Governor of Katanga, a southeastern province of the DRC, Moise Katumbi Chapwe, stated that Chinese firms finance FDI in the DRC more easily because Chinese banks have steelier nerves than their Western counterparts.[227] The Governor added that Chinese companies are also keen to upgrade their plants and expand into other businesses, decisions that other foreigners are reluctant to make.[228]

5.5.6. Technology transfer

China brings along technological know-how adapted to the continent's needs and enables technology transfer by employing and training local professionals. With regard to training and capacity building, China has signed several agreements on health, which consisted in the exchange of medical teams and the training of health professionals on the continent.[229] For instance, the R4I contract between Angola and China expressly provides for technology transfer through the subcontracting of construction jobs to Angolan firms. China further proposes to send free of charge medicine and medical equipments in African countries.[230] In the past few years, China has formulated programs on the prevention and treatment of infectious diseases, like malaria and HIV/AIDS, and deployed in 47 countries more than 15, 000 medical doctors.[231]

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[227] *Mutual Convenience: Congo Has Something China Wants, and Vice Versa,* ECONOMIST, Mar. 15-21, 2008, at 14 [special edition on China's thirst for resources].
[228] *Id.*
[229] Regina Jere-Malanda, *supra* note 39, at 14.
[230] *Id.*
[231] *Id.*

5.5.7. Affordable products

Chinese products are affordable. They have a good quality/price ratio, which corresponds to the purchasing power of most Africans. Lower prices have allowed for the creation of a new class of consumers and the formulation of innovative programs.[232] China declares that it provides the best-quality equipment and material of its own manufacture at international market prices. It is never the less wise for parties to R4I contracts and other investment contracts to include warranties whereby Chinese investors undertake to replace equipment and material that are not up to the contract specifications. Chinese investors, as sellers of construction equipment and material, could overcome the risks of defective products by signaling the quality of their equipment and material by undertakings cheaper for them to give than it would for sellers of low-quality equipment.[233] A common undertaking is to offer a warranty against the equipment's proving to be substandard.[234]

5.5.8. Aid-investment packages

Another distinctive advantage of investments from China is the fact China has blurred the perceptible line between aid and investments, repackaging both as single major international business transactions. In actual fact, Chinese aid is multiform, ranging as it does from government-deducted interest loans, aid combined with co-investment, and grants.[235] Aid or official development assistance (ODA) are grants or loans that are intended primarily to foster development in the recipient country, and that have at least a 25 percent grant element.[236]

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[232] Abdoulaye Wade, *supra* note 225, at 13. President Wade cites the emergence of *Sister Taxis* in Senegal as an example of innovative programs made possible by the low price of Chinese products.
[233] *See* Benjamin E. Hermalin *et al.*, *Contract Law, in* HANDBOOK OF LAW AND ECONOMICS 3, 10 (A. Mitchell Polinsky & Steven Shavell eds. 2007).
[234] *Id.*
[235] Li Anshan, *supra* note 108, at 32.
[236] Development Co-operation Directorate (DCD-DAC), Glossary: Aid, http://www.oecd.org/glossary/0,3414,en_2649_33721_1965693_1_1_1_1,00.html#1965422 (last visited Oct. 20, 2009); Deborah Bräutigam, *supra* note 79, at 208.

Some scholars believe that the loan terms of R4I contracts are a mix of aid and investment in that they are partly commercial and partly concessional.[237] Surely, the available loan terms of R4I contracts disclose market rates, though they are very good market rates.[238] It thus appears that R4I contracts can countenance both market and concessional terms, and channel either aid or foreign direct investment.

5.5.9. Aid and debt relief

Senegal President Wade, in an article in the *New African* magazine, stated that China provides direct aid.[239] Former Chinese premier, Zhou Enlai, unveiled in 1964 the 'Eight Principles' of China's aid to foreign countries (Zhou Enlai's Eight Principles). In essence, these principles promised that China would provide the most favored assistance to Africa, while imposing restraints on Chinese aid personnel.[240] The principles are as follows:[241]

1. The Chinese government does not regard aid as a kind of unilateral grant but as something mutual.
2. In providing aid to other countries, the Chinese government strictly respects the sovereignty of the recipient countries, and never attaches any conditions or asks for any privileges.
3. China provides economic aid in the form of interest free or low-interest loans and extends the time limit for repayment when necessary so as to lighten the burden of the recipient countries as far as possible.

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[237] Phone interview with Nils Tcheyan, Consultant and Former Director of Strategy and Operations in the Africa Region, World Bank (May 14, 2010).
[238] Phone interview with Deborah Bräutigam, Associate Professor, School of International Service, American University (Jan. 15, 2010).
[239] Abdoulaye Wade, *supra* note 225, at 13.
[240] Li Anshan, *supra* note 103, at 27.
[241] Zhou Enlai, Chinese Premier, Speech, Accra, Ghana, (Jan. 15, 1964); Li Anshan, *supra* note 103, at 26-27.

4. The purpose of aid is not to make the recipient countries dependent on China but to help them embark step by step on the road to self-reliance and independent economic development.

The 16 agreements concluded in 2006, totaling 1.9 billion US dollars and involving a dozen Chinese and African corporations, followed the promise by President Hu Jintao to propose 5 billions of US dollars in loans and credit and to double aid to the continent in 2009.[242] Moreover, since the institution of FOCAC, China cancelled 1.3 billion US dollars of the debt owed by states in Africa and wrote off another 1.2 billion US dollars.[243] China is also aligning its development assistance to the UN's Millennium Development Goals (MDGs) to reduce poverty by half by 2015.[244] In June 2006, for example, China announced a debt relief worth 20 million US dollars in Senegal's favor.

5.5.10. Grand infrastructural projects

A characteristic pattern of China's FDI and R4I contracts in Africa is the systemic and organic link between infrastructural projects and business transactions.[245] China plays a central role in infrastructure development in Africa as it finances several grand infrastructural projects, with a focus on hydropower generation, roads and railways.[246] Chinese construction firms build roads, bridges, railways, EPZs, harbors, petrochemical installations and military barracks. Most China's infrastructural projects in Africa are funded by aid and carefully aim to complement its business activities. Most of the Chinese firms engaged in infrastructural projects are in the construction sector; and many of them are state-owned corporations.[247]

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[242] Regina Jere-Malanda, *supra* note 39, at 14.
[243] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 9.
[244] *Id.*
[245] Emmanuel Obuah, *supra* note 47, at 11.
[246] *See* VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at xi; World Bank, New Financiers Are Narrowing Africa's Infrastructure Deficit: Latest Report Shows China is Leading the Way, Press Release No 2009/017/EXC. (2009); Lucy Corkin, *China's Strategic Infrastructural Investment in Africa, in* CHINA'S NEW ROLE IN AFRICA AND THE SOUTH: A SEARCH FOR A NEW PERSPECTIVE 138 (Dorothy-Grace M. Guerrero & Firoze Manji eds. 2008).
[247] *Id.*

More than 30 African countries are engaging with China on major infrastructure finance agreements. China also allows African countries to upgrade their infrastructure at all-time records. In this regard, President Wade said that Chinese infrastructure has not only stimulated African economies but also contributed to the welfare of the entire people, not only the elite.[248] In April 2006, the Algerian government has awarded Chinese and Japanese contracts worth 7 billion US dollars for the construction of a 1,300 kilometers road linking Tunisia and Morocco. In June 2006, China promised Senegal to invest 35 million US dollars in the construction of the biggest theatre of West Africa to promote African art.[249] In exchange for the construction of ports, roads, hospitals, railways and other infrastructure, China frequently gets access to mines and mining titles. That strategy is at the heart of the resource-for-infrastructure philosophy.

5.5.11. Creating trade capacities

The most cited evidence of the benefits of China's FDI in Africa is the staggering surge in trade between China and Africa and the favorable terms of trade enjoyed by some African countries.[250] Chinese investors build factories, which create employment and enable the acquisition of technical skills. One Chinese entrepreneur, Liehui He, explained the business of his corporation as follows:[251] They export Chinese textile products to Africa, then make clothes, which they re-export from certain African countries to other African countries as well as overseas to Europe and the US. He said that his Touchroad corporation advocates the creation of EPZs, where it can make goods to be sold locally and in other African countries.[252]

[248] *Id.*
[249] Regina Jere-Malanda, *supra* note 39, at 14.
[250] Emmanuel Obuah, *supra* note 47, at 13.
[251] Interview by Hichem Ben Yaïche with Liehui He, Managing Director, Touchroad International Holdings Group Ltd, in Shanghai, China (2008), reprinted in Hichem Ben Yaïche, *Les Raisons d'Investir en Afrique,* NEW AFR., Jun. – Aug., 2008, at 21.
[252] *Id.*

5.6. Weaknesses of China's FDI

Commentators have advanced various reasons for their arguments that China's FDI threatens certain states in Africa. Some fear that Chinese FDI may repeat patterns that lead to the economic marginalization, de-industrialization and underdevelopment of Africa. Others have warned that, whereas on balance the short-run opportunities of China's FDI outweigh the economic costs for Africa, especially resource rich countries, the long-run risks related to inadequate institutions and poor governance systems may be serious.[253] China's FDI has also been associated with many problems, some of which are by their very nature intimately connected to mining activities.[254] These problems include notably the potential for corruption, environmental degradation, safety and health risks, low wages, and poor labor relations.

Others say that China's FDI contains traces of China's state-led brand of capitalist development, distinctive for its low standards of corporate and environmental governance, which have caused unbridled environmental destruction, corruption and poor labor relations.[255] For instance, in 2005, a mine accident claimed the life of 49 workers in 2005. One year later, Zambian workers in a Chinese-run mine violently rioted against low safety standards and wages. Capitalizing on the workers' bitterness, opposition leader Michael Sata accused the Chinese workers of exploiting Zambian workers during an election campaign that he eventually lost.

5.6.1. Investment without industrialization

The South Africa-based Brenthurst Foundation forecasts that Asian investors are likely to dominate industries like textile in the future and that such domination will inhibit most African countries climbing the traditional first step of the industrialization ladder.[256] Emmanuel Obuah

[253] Andrea Goldstein *et al., China's Boom: What's In It for Africa, in* CHINA RETURNS TO AFRICA: A RISING POWER AND A CONTINENT EMBRACE 27, 28 (Chris Alden *et al.* eds. 2008).
[254] *See* Monika Weber-Fahr *et al., Mining, in* A SOURCEBOOK FOR POVERTY REDUCTION STRATEGIES 443-444 (World Bank 2002).
[255] Joshua Kurlantzick, *supra* note 209, 5; Emmanuel Obuah, *supra* note 47, at 11.
[256] Competition or partnership? China, United States and Africa – An African View? 2 (Brenthurst Foundation, Discussion Paper 2, 2007). [hereinafter, Brenthurst Foundation]

maintains that China's FDI might de-industrialize African economies by failing to provide forward and backward linkages that would stimulate auto-centric development in Africa.[257] Chinese firms in Africa, he says, are vertically integrated to their parent firms in major cities in China to promote trade and development for China.[258]

The nature of contracts and aid projects delivered through China Eximbank strengthens vertical integration. According to Obuah, vertical integration would crystallize the continued reliance of countries in Africa on China for the supply of spare parts and the maintenance of these projects.[259] However, Obuah's observation does not apply to R4I contracts, which countries like Angola and the DRC have used not only to develop their mineral industry but also to diversify the host economy through the construction of infrastructure in several areas.

Some scholars have concluded that, given the current state of African economies and the likely prediction that Asian countries will overwhelm some industries, African countries are best positioned to serve a supply function to China.[260] They suggest that a mix of natural resource exploitation, agricultural self-sufficiency and high-value agro-exports, and the expansion of its unique range of service industries including tourism, is the most rewarding growth path for Africa.[261]

5.6.2. Debt sustainability

China's finance and R4I contracts may be a double-edged sword. While it is seen by most government officials in Africa as salutary, China's financial largesse raises the specter of another debt vicious cycle. The danger of falling into a debt trap is intensified by the large size of

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[257] Emmanuel Obuah, *supra* note 47, at 13.
[258] *Id.*
[259] *Id.*
[260] Martyn Davies, *The Rise of China and the Commercial Consequences for Africa, in* ENTER THE DRAGON: TOWARDS A CHINA-SACU FREE TRADE AGREEMENT 161 (Peter Draper & Garth Le Pere eds., 2005); Brenthurst Foundation, *supra* note 256, at 2.
[261] Brenthurst Foundation, *supra* note 256, at 2.

Chinese finance. This proposition is based on the premise in finance that the larger the debt the greater the risk of default. Debts are actually not in themselves economically deleterious. To be sure, credit and debt are the lifeblood of business. Debts become a public finance disaster when a state's public debt is greater than its reasonable debt servicing capabilities. But the contention is made that Beijing's loans to African governments through export credits and concessional finance will create new forms of debt unsustainability.[262]

The debt unsustainability contention is one that is routinely heard within Western circles when speaking of the financial terms of R4I contracts. The contention features general accusations that China is 'free-riding', undermining as it does the debt relief granted through bilateral (the Paris Club) and multilateral programs (the Multilateral Debt Relief Initiative and the HIPC).[263] Two pieces of evidence are proffered to corroborate the accusations. First, Beijing has expanded concessional loans and reduced its grant assistance to Africa; second, it has strengthened the role of China Eximbank and authorized China Development Bank to administer the CADF.[264] In 2010, however, UNCTAD has published a report on South-South cooperation that states that empirical evidence in Angola and Sudan contradicts the debt unsustainability contention.

5.6.3. Disparities between poor and rich host countries

China's FDI and R4I contracts impact countries in Africa differentially. Chinese FDI is said to accentuate disparities between resource rich and resource poor countries in Africa, thus repeating the effects that FDI from Europe has long had on Africa. China's FDI ignores countries in Africa that are resource poor or considerably less resource-endowed because China's investment policy is significantly energy and resource driven. However accurate, this criticism also applies to the

[262] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 11-12.
[263] *Id.* at 12.
[264] *Id.*

UK, the US, France, from where some scholars on China-Africa economic relations are voicing their criticisms of China's FDI in Africa.

5.6.4. Modest technology transfer and job creation

China labor-based comparative advantage over Africa's resource-based advantage means that Chinese FDI occurs to the detriment of the large labor force in Africa.[265] This comparative advantage raises concerns whether China's FDI will in the long term add value in the sense of technology transfer, education and opportunities for Africans.[266] This observation is common among commentators.

However, several mining contracts provide for the employment of local workers. The problem appears to result from the failure to enforce contract provisions on local workers employment rather than the inherent features of China's FDI. In the case of R4I contracts, the claim that Chinese FDI only marginally creates jobs is incorrect. R4I contracts produce mega-infrastructure projects, which create hundreds of jobs, if not many more. Infrastructure projects are, unlike mining agreements, labor-intensive.

5.6.5. Scramble for resources in Africa

Fears also relate to the risks that the influx of China's FDI could set off a scramble for resources in Africa. If China uses aid tied to investment to win major oil and gas deals, it could convince other emerging powers in Africa, like India, to follow suit, potentially undermining governance and sparking conflict for resources.[267] Here, the accusation is that China is a 'new colonialist', a 'new economic imperialist' or a scrambler.

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[265] Emmanuel Obuah, *supra* note 47, at 13.
[266] *Id.*
[267] Joshua Kurlantzick, *supra* note 209, at 5.

All things considered, however, accusations that China is a colonialist do not hold much water because the systematic patterns of China-Africa economic relations differ from the economic and political patterns that defined dealings in colonial times. Stephanie Rupp argues that China's engagement with Africa is neither colonial nor neocolonial.[268] Rather, China is leveraging structural features of African political and economic systems that serve the interests of the Chinese and African states, often to the detriment of ordinary people.[269]

What sets apart China's ventures from the 19th century colonization of Africa is the high level of political and economic self-determination that states in Africa enjoy. And, unlike the situation that prevailed under European colonization, African states retain more and spread more widely the benefits of FDI.[270] China's involvement in Africa has significantly contributed to the continent's economic development and five percent growth rate for a decade before the 2008-2009 financial crisis dampened Africa's growth prospects.[271]

5.6.6. Dumping and undermining competition

There are also fears that the presence of Chinese multinational corporations might drive away competition. It goes without saying that, if Beijing uses its relative advantage in manufacturing to dump cheap consumer retail products, it will annihilate economic growth and development in Africa. Markets in Africa are progressively dumping sites for cheap consumer retail products, like textiles, garments, leather goods and electronic products,[272] thereby displacing jobs and reversing endeavors to vivify local entrepreneurship.

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[268] Stephanie Rupp, *Africa and China: Engaging Post-Colonial Interdependencies*, *in* CHINA INTO AFRICA: TRADE, AID, AND INFLUENCE 65 (Robert I. Rotberg ed., 2008).
[269] *Id.* at 66.
[270] *See* Abdoulaye Wade, *Time for the West to Practise What It Preaches,* FIN. TIMES (U.K.) (special report), Jan. 24, 2008, at 6.
[271] Li Anshan, *supra* note 108, at 37.
[272] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 9.

Andrea Goldstein and others show that China's FDI will be complementary in some countries and competitive in others.[273] Complementary effects for African producers result from increased demands for raw materials from China and other Asian countries.[274] However, competition comes about where Asian economies indirectly divert investment resources away from African economies and compete with infant local manufacturing sectors.[275] Chinese state-owned construction firms might, with the backing of the Chinese government, eclipse local competitors with cheaper tendering and subsidies to Chinese contracts.[276]

5.6.7. Environmental degradation

Scholars and activists are pointing fingers at China's mining investments and construction of hydroelectric power dams for harming the environment. For instance, activists have leveled environmental concerns against the R4I contracts for the construction of hydroelectric power dams in Congo-Brazzaville and Ghana, and the construction of infrastructure in Gabon.[277] Over the years, activists succeeded in discouraging the World Bank and other aid agencies from funding large-scale hydropower dams in poor countries arguing that project planners failed to incorporate social and environmental costs.[278]

In fact, the risk of environmental degradation is not unique to Chinese mining investments but to all extractive activities. In countless instances, resource extraction has polluted or caused the degradation of the environment, which can sometimes be irreversible. Mining has posed problems in the copper mining in Zambia prior to privatization, abandoned pits and shafts over a large area of unregulated artisanal mining in West Africa, and tailing dumps around

[273] Andrea Goldstein *et al.*, *supra* note 253, at 28.
[274] *Id.*
[275] *Id.*
[276] Emmanuel Obuah, *supra* note 47, at 14.
[277] The non-governmental organization International Rivers has been singularly outspoken against the construction of hydroelectric power dams by Chinese investors in a number of countries in Africa.
[278] DEBORAH BRÄUTIGAM, *supra* Ch. 2 note 11, at 302.

Johannesburg in South Africa.[279] No doubt Chinese investors are aware of the necessity and have been able to conduct environmental impact assessments (EIA) in connection with numerous projects in various African countries.[280] The available terms of R4I contracts do not explicitly provide for environmental impact assessments (EIA), but municipal law almost always oblige mining or oil firms conduct EIAs before they can start operations.[281] In the case of the DRC-China R4I contract, however, the President of the China Eximbank declared that it required each project to spend 3 percent of the investment on environmental mitigation.[282]

5.6.8. Dutch disease

Some analysts claim that, instead of contributing to the diversification of local economies, China's FDI in Africa reinforces over-independence on the export of primary commodities at the detriment of the manufacturing sector. Thus, the claim is that Chinese FDI brings about the 'Dutch disease': It expands the mining sector, occasioning a corresponding decline in the manufacturing sector. If African states do not effect macro-economic structural reforms, including diversification of the economy, Africa will undoubtedly remain an exporter of raw materials to China. This criticism is open to debate but the necessity to put up a sound economic diversification policy is not. R4I contracts might be precisely the policy framework needed to diversify the economy effectively, as appears to be the case with the DRC-China and Angola-China R4I contracts.

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[279] Colin Noy Boocock, *Environmental Impacts of Foreign Direct Investment in the Mining Sector in Sub-Saharan Africa, in* FOREIGN DIRECT INVESTMENT AND THE ENVIRONMENT: LESSONS FROM THE MINING SECTOR 19 (Organisation for Economic Co-operation and Development 2002).
[280] DEBORAH BRÄUTIGAM, *supra* Ch. 2 note 11, at 303.
[281] *See* e.g. C. MIN. art. 204 and Mining Regulations arts. 451-452 in the Democratic Republic of the Congo.
[282] DEBORAH BRÄUTIGAM, *supra* Ch. 2 note 11, at 303.

6. China and Africa's traditional partners

Debates on whether Africa should stay West, go East or head South are raging on. What those debates share in common is that protagonists in debates invariably engage in cost-benefit comparisons of traditional FDI with FDI from China or India, or with FDI from other countries in the global South. Adama Gaye said that Africa has two major options: To embrace China's investments or to preserve old friendships by maintaining the *status quo* with Africa's traditional partners in the West.[283]

It is important to pause here to note that, although China is the biggest user of the resource-for-infrastructure formula, the distinction between R4I contracts and ordinary investment contracts does not mirror the comparison between China and traditional investors. China utilizes both R4I contracts and the ordinary investment contracts that investors from Western nations work with, but traditional investors have not yet resorted to the R4I contract formula for their purposes.

It is counter-productive to constantly compare China's investments in Africa with investments from the continent's traditional partners in the West. Yet analyzing China's FDI in Africa without such comparisons would be hollow because policy makers in Africa can only know if they are contracting on better terms if they carry out comparative analyses. Comparisons are further called for because of the palpable competition between China and traditional lenders. In comparative exercises, the main argument characteristically boils down to the claim that China is more competitive in Africa than traditional investors and institutions.

China's FDI and presence in Africa are generally eliciting all manner of apprehension in much of the Western media. Described by Ampiah & Naidu as 'hysteric',[284] this apprehensive response comes in many forms and shapes, from concerns that China is intruding into the Western

[283] Adama Gaye, *supra* note 8, at 7.
[284] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 4-5.

powers' traditional sphere of influence, to concerns that China reverses notable progress made by the international community, like ostracizing rogue states for undemocratic practices and violations of international law and human rights.[285] It also comes in as 'threat theories' and 'campaigns of suspicion' that depict China as a new neo-colonial power with an imperialist agenda and define the nature of China's engagement with Africa as 'purely exploitative, extractive and destructive.'[286]

China distinguished itself from traditional partners, hard hit by the 2008-2009 economic and financial woes, by substantially investing in Africa during that global financial crisis. Chinese entrepreneurs and businesses have regarded, and have been financially encouraged by Beijing to regard, Africa as a continent of economic potential populated by consumers.[287] In contradistinction, Western investors have viewed Africa with pessimism as a place of chaos and uncertainty and as a security risk. Conversely, Beijing has capitalized on this uncertainty to enter Africa at a relative bargain while using its own growth to fuel Africa's.[288]

China strives to distance itself from the West by declaring that its intentions, unlike those of the West, are based on pacifism and the respect for foreign cultures.[289] The Chinese leaders proudly stated during the first two FOCAC meetings that China's relations with Africa were free of political conditionality, serving their mutual interests, and spoke against neo-colonialism and Western hegemony in international affairs.[290]

Thus far, China's investments have produced more tangible results than those of traditional partners. China's better performance is partly due to the bigger size of its capital inflows on the

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[285] *Id.* at 3.
[286] *Id.* at 4.
[287] CHRIS ALDEN ET AL, *supra* Ch. 1 note 11, at 7.
[288] Asia Economic Institute, *supra* note 43.
[289] Adama Gaye, *supra* Ch. 1 note 8, at 8.
[290] CHRIS ALDEN, *supra* Ch. 1 note 11, at 31.

continent. In 2007, China's Eximbank promised to establish a 20 billion US dollar fund to finance infrastructure and trade for three years, a fund greater than the pledges made by Africa's traditional partners. China also fulfils the promises that it makes more than the traditional partners do. For example, after China promised to cancel the greatest part of the debts that African countries owed to it, it actually cancelled the debts. However, the ambivalence of Western countries in pursuing their own national interests and in tying aid and investments to democracy and human rights did not have the expected results.[291]

Some analysts believe that China's FDI in Africa are gradually making the World Bank and the International Monetary Fund (IMF) obsolete, irrelevant and redundant on the continent.[292] Ampiah & Naidu are of the view that China's role as an alternative source of credit to the IMF and the World Bank is most probably the 'most profound element of China's engagement with Africa.'[293] In 2007, China's investments in Africa totaled 9 billion US dollars whereas investments in Africa by the World Bank only amounted to 2.5 billion US dollars.

China's FDI have forced Africa's traditional partners, effectively taken aback by the nature and extent of China's capital inflows, to re-think their development assistance strategies in Africa. For instance, the World Bank is trying to persuade China to become the Bank's associate in project finance in Africa. In December 2007, the World Bank and China agreed to develop joint projects in Africa. But, at the same time, China has created the China Investment Corporation (CIC), a Chinese national sovereign wealth fund, which has financial assets worth 200 billion US dollars.[294] Africa's traditional partners have also started to imitate China's emphasis on infrastructure development and its practice of granting loans, commercially unviable in the short term yet strategic in the long term. A third example of the adjustment by traditional partners to

[291] Adama Gaye, *supra* Ch. 1 note 8, at 9.
[292] *Id.* at 7.
[293] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 9.
[294] *Id.*

China's presence in Africa is the fact that Western countries appear to respect the sovereignty of African countries a little bit more than hitherto.

7. Lessons for a normative South-South framework

It is apposite at this juncture to institute the basic elements of the normative investment framework of South-South cooperation. These elements are general lessons and strategic themes derived from systematic patterns of China's FDI in Africa presented in this chapter and recast here, leaving out chance fluctuations, as policy choices for the South-South normative investment framework. For the most part, the elements retained for the South-South framework differ or emphasize different policy choices from the investment models that traditional investors championed and elaborated. The importance of this general South-South framework is that the R4I investment contract model proposed in this dissertation is (best construed as) a *particular application* of the framework. Any reading of the R4I contract form as an application of traditional investment models would be misguided, if not far off the mark.

History of economic domination – South-South cooperation is an idea born in pain as it historically emerged as a reaction to colonialism, neo-colonialism, economic domination by Western powers, and underdevelopment. This history informs South-South cooperation by insisting on such principles as equality, mutual benefit, co-development, respect for sovereignty and self-determination.[295] R4I contracts are the essence of the win-win partnership proclaimed in public declarations by African and Chinese leaders.

Present of economic self-determination and reforms – Partly as a result of its painful past, today South-South cooperation is the consecration of the principle of economic self-determination. The

[295] Accra Agenda for Action, ¶ 19(d) (Sept. 4, 2008) (encouraging actions on South-South cooperation aims to observe the principle of non-interference in internal affairs, equality among development partners and respect for their independence, national sovereignty, cultural diversity and identity and local content).

principle manifests itself through the assertive roles of African countries in effecting macro-economic structural changes to increase China's FDI; decreasing the cost of doing business; negotiating investment agreements, including R4I contracts; renegotiating skewed mining contracts; and in using China's thriving FDI in Africa to boost its lesser bargaining position by playing off Eastern and Western investors and pushing against the demands of traditional donors, the World Bank and the IMF.[296]

Energy and natural resources – Energy security and natural resources, including fossil fuels, are the focus of South-South cooperation patterns. In that regard, these patterns resemble the practices of traditional investors, if not those of colonial masters.[297] However, they fundamentally differ from North-South FDI not so much in their focus as in the way R4I contracts and other investment contracts utilize natural resources to ensure mutual benefit for China and Africa.

Physical infrastructure – one fundamental difference between South-South (or Chinese) and North-South FDI is that the former prioritize infrastructure building.[298] This priority is evident in the infrastructure component of R4I contracts. South-South cooperation pays special attention to post-conflict countries and the least developed countries (LDCs) by urging states to assist these countries in reconstructing, rehabilitating political, social, and economic infrastructure.[299]

Multi-sectoral investment – Another fundamental difference is that South-South cooperation covers a vaster realm of economic sectors. In particular, R4I contracts are effective tools for the diversification of the economy, laying the groundwork for such diversification by building infrastructure in various sectors of the host economy.

Multipolar world and partner diversification – South-South cooperation is a mechanism to diversify Africa's economic partners. The key principle or legal norm is that Africa should strive

[296] *See* Richard Dowden, *Why Africa Welcomes the 'New Colonialism'*, THE TIMES ONLINE (U.K.), Nov. 9, 2009, http://www.timesonline.co.uk/tol/comment/columnists/guest_contributors/article6908835.ece .
[297] Stephanie Rupp, *supra* note 268, at 66.
[298] Provisions on physical infrastructure, see High-Level Conference on South-South Cooperation, Marrakech, Morocco, Dec. 15-19, 2003, Marrakech Framework of Implementation of South-South Cooperation ¶ 9 [hereinafter Marrakech Framework].
[299] Marrakech Framework ¶ 39.

to spice up healthy competition among its economic partners so as to extract the best terms of economic exchanges. The corollary of this principle is that states in Africa should not allow either the emergent Asia or the traditional West to become so monopsonic – and thereby so complacent – a player as to dictate the terms of economic exchanges or, specifically, R4I contracts.

Aid and conditionalities – South-South cooperation is distinguishable from traditional investment by the absence of aid conditionalities. Aid is but a means to greater FDI. The purpose of the absence of aid conditionalities is to enable self-development. Chinese investors do not condition the signing of R4I contracts or any other investment contracts on the compliance by the host countries with some standards. Further, R4I contracts function like an incentive for greater FDI in local infrastructure development.

Debt sustainability – A recurrent theme of the Chinese version of South-South cooperation is whether Chinese finance risks entrapping African nations into another vicious debt cycle.[300] This risk creates an obligation on states in Africa to take reasonable measures to prevent their public finances from running off rails. With specific reference to R4I contracts, this risk creates an obligation on states to negotiate the terms such that they do not incur more debt than they reasonably afford.

Alternative source of finance – A striking feature of South-South cooperation is that it opens up an alternative source of development finance. African states should take advantage of and widen these alternative sources of finance and alternative financial institutions with a view to reducing their dependence on multilateral financial institutions such as the IMF and the World Bank.

Multilateral cooperation scheme and regional integration – Epitomized by FOCAC, which is a unique trait of Sino-African economic relations, South-South cooperation is a multilateral platform for the discussion of trade and investment and an opportunity to dream up economic

[300] South-South cooperation encourages initiatives for debt cancellation to benefit post-conflict countries and least developed countries (LDCs). *See* Marrakech Framework ¶ 35.

programs to realize regional integration in Africa. Without such programs, FDI in Africa, however substantial, may fail to foster sustainable development.

Creating trade capacities and industrialization – South-South cooperation is also the linkages between FDI and trade through the creation of trade capacities and industrial bases in Africa. China's creation of SEZs in a number of African countries is a good example. R4I contracts can serve identical purposes as it develops mining infrastructure and practically always involves exports of primary commodities to China.

Equality – equality is a fundamental norm of South-South cooperation. It stems from the common experience of countries in the global South in terms of development.[301] It is reflected in consistent and persistent attempts by these countries to resolve in their favor substantive and regulatory issues in international economic law, especially foreign investment law. The preponderant role of the host and home states in the execution of R4I contracts and the change they represent from classic FDI law should be seen in this light.

Co-development and win-win – win-win is the most essential element of South-South cooperation. Though different scholars have interpreted this element differently, the dissertation concludes that it is more accurate to read *the realization of economic complementarities between investing state and the host state* into it. It is because R4I contracts realize these complementarities that this dissertation concludes that R4I contracts are the essence of 'win-win' rhetoric of African and Chinese leaders.

Centrality of the state in development – Unlike the prescriptions of neoliberal philosophies and international financial institutions (IFIs) like the World Bank and the IMF, China's investment policies and R4I contracts in Africa re-instate the state in its central role as the initiator and facilitator of economic development. African leaders have typically embraced China's development assistance in part because it offers an alternative development model based on a

[301] South-South cooperation also consists in the exchange of development experience. *See* Uche Ewelukwa Ofodile, *supra* Ch. 1 note 49, at 516-517.

more central role for the state, eschews any meddling in internal affairs and emphasizes partnership and solidarity among developing states.[302]

State-to-state business model – Much of the advantages of South-South cooperation originates from the state-to-state business model that it ushers in foreign investment law. Traditionally, foreign investment law assumed a tripartite set of actors in a typical investment law relationship, namely the home state, the host state and the (private) investors.[303] However, the emerging state-to-state business paradigm heralded by China, of which R4I contract are a prime example, will surely influence the typical investment law relationship by encouraging the fusion of home states and investors. The involvement of the home and host states determines the decision of foreign investors to invest in the African host state as opposed to states with a more attractive investment climate.

State-owned corporations – The state-to-state dealings characteristic of South-South cooperation and R4I contracts bear fruits to a large extent because of the presence of state-owned corporations. FDI using state-owned corporations as vehicles usually translates a structuring of the economic and political system of the home state that is at odds with pure capitalism. China and Brazil have political and economic systems with ostensibly socialist components.

Substantial financial flows – South-South cooperation assumes gradually rising levels of FDI. The R4I contracts signed in Africa mark in the majority of cases the largest financial commitments on infrastructure development that the host countries received since their independence. However, this element is not exclusive to South-South cooperation as foreign investment law and practice is pregnant with such commitments. It remains the case nonetheless that recent state practice reveals that South-South cooperation fulfills these commitments more than North-South economic cooperation.

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[302] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at vii.

[303] Peter Muchlinski, *Policy Issues, in* THE OXFORD HANDBOOK OF INTERNATIONAL INVESTMENT LAW 3-48, 6 (Peter Muchlinski *et al.* eds, 2008).

Uncertainty as an opportunity – the involvement of the home and host states in South-South FDI results in the re-evaluation of risks and investment climates in Africa such that more and more investors from emergent countries see the continent optimistically as a place of opportunity. In effect, China struck multiyear R4I deals for infrastructure development in various sectors with countries, such as Guinea, Congo-Brazzaville and the DRC, which traditional investors customarily regard as high risk FDI destinations.

Equity joint ventures – To ensure the exchange of experience, expertise, technology, resources, managerial skills, while at the same time taking advantage of favorable tax treatment, host and home states promote in South-South investment agreements joint ventures as the preferred form of cooperation. Joint ventures are the vehicles for the financing of infrastructure works carried out in terms of R4I contracts.

Search for markets – Finally, South-South cooperation differs from North-South cooperation schemes in that it does not view people in Africa simply as net exporters of raw materials but also as consumers who, altogether, constitute attractive markets for investors.

CHAPTER 4

SINO-AFRICAN MACROECONOMIC COMPLEMENTARITIES

1. Introduction

The chapter preceding this one presented the multi-faceted FDI from China to Africa. In the process, it remarked that South-South economic cooperation, the general context of China's FDI in Africa, held only a marginal sway over the way African states and their Chinese counterpart conclude investment contracts. It attempted to remedy this lacuna by drawing out from the systematic patterns and strategic themes of China's FDI in Africa the basic elements of a normative investment framework for South-South cooperation.

This chapter discusses China's growth, the strategic value of mineral resources and the resource-for-infrastructure investment contract model in international business, infrastructure development and significant growth opportunities for countries in Africa. A 2009 World Bank report *Building Bridges* found and aptly analyzed the complementary relation between China's growth and Africa's resources. Effectively, evident economic complementarities exist between China's thirst for natural resources and Africa's crave for basic infrastructure. China has one of the world's largest and most competitive construction industries and limited natural resources; Africa has an infrastructure deficit and a wealth of resources.

Even though African exports to Asia as a whole do not exhibit a significant pattern of product diversification, intersectoral complementarities between Africa and China do exist.[1] This is true in a general context where Africa is a large supplier of raw materials to China, including energy resources, and China is a supplier of manufactured products to African economies.[2] This context is largely driven by factor endowments.[3] The World Bank presented those complementarities as follows:

Table 9: Economic complementarities between China and Sub-Saharan Africa

[1] Harry G. Broadman, *supra* Ch. 3 note 173, at 101.
[2] *Id.* at 101-102.
[3] *Id.* at 102.

	Infrastructure	Resources
Africa	Africa has a major infrastructure deficit, with unmet investment needs ≈ 31 billion US dollars	Africa is a major export of natural resources, with infrastructure bottlenecks preventing full realization of its potential
China	China has a large, globally competitive construction industry	China's manufacturing-based economy creates high demand for natural resource inputs, beyond those domestically available.

Source: V. Foster *et al., Building Bridges* (2009) 29; V. Foster & C. Briceño-Garmendia, *Africa's Infrastructure* (2010) 66.

However, what the *Building Bridges* report does not see is that R4I investment contracts translate these complementarities in a contractual form. It is by drawing this further conclusion – R4I contracts translate Sino-African economic complementarities – that this chapter differs from and adds on to the *Building Bridges* report. That conclusion is in fact the main submission of this chapter. Those Sino-African macroeconomic complementarities are the fundamental clauses of R4I contracts as they also reflect the basic intentions of the African and Chinese parties.[4]

Table 10: Fundamental structure of R4I contracts

	Infrastructure	Resources
Africa	Resource rich African party contracts with China for the construction of major infrastructure works	In exchange for Chinese infrastructure loans, the African party grants to China rights to exploit minerals or hydrocarbons.
China	China deploys its state-owned construction corporations to build infrastructure works	China uses exports of minerals or hydrocarbons to pay for the costs of infrastructure works

The organization of this chapter mirrors the structure of the chapter's main argument. Accordingly, the first part of the chapter succinctly narrates the economic growth of China; the second part examines the incidence of China's growth on commodities

[4] *See* R4I Contract Model art. 1.1.2.

markets and how it is driving China to search for natural resources in Africa. The following part depicts China's growth and how it has led its highly competitive construction industry to build infrastructure in Africa. The chapter closes by demonstrating that R4I contracts are the contractual form of economic complementarities between China and Africa.

The significance of this part of the research lies in the fact that the argument expounded in this chapter is the minor premise of the dissertation's central thesis. To recall, the central thesis is that R4I contracts outcompete other types of investment contracts chiefly because they spread investment in mining to other vital economic sectors through infrastructure building. Verifying that thesis, which is the subject of Chapter 6, requires that this dissertation establishes beforehand how R4I contracts realize Sino-African economic complementarities. The role played by economics in shaping the terms of exchanges has been implicit since organized society began;[5] the task of this chapter is to make explicit the role macroeconomics plays in organizing the terms of R4I contracts. This chapter discharges this task by showing the intersectoral complementarities that China's FDI creates in mining and infrastructure in resource rich countries in Africa and how R4I contracts best encapsulate these economic affinities.

[5] JEFFREY L. HARRISON & JULES THEEUWES, *supra* Ch. 1 note 19, at 7.

2. China's growth

Growth and growing FDI from the People's Republic of China (PRC) in Africa has been the predominant driver of a corresponding growth and growing development opportunities in Africa. The past decade has witnessed a positive economic growth in the vast majority of countries in Africa, only interrupted by the 2008-2009 global financial crisis. This positive development is strongly associated with China's rise as a first-rate economic player in Africa, notably China's demand for the continent's subterranean resources. It is thus necessary to trace the economic growth in China and identify the China-Africa economic transmission channels.

2.1. The history of a dramatic transformation

On 1 October 1949, China proclaimed itself the People's Republic of China (PRC) (中华人民共和国). From 1949 to 1978, China had a centrally planned economy. The year 1978 marks a watershed in China's history as this is the year China, under the leadership of Deng Xiaoping, geared towards a market-oriented mixed economy in a one-party state.

The economic transformation of China can be summed up in five historical periods. In the first period China established the core economic institutions of a modern economy. It expanded those institutions and market-oriented reforms in the second period. The next period saw an average double-digit economic growth, and the fourth period saw China entering, weathering and fast recovering[6] from the 2008-2009 financial crisis. Scientific development, further expansion and the consolidation of economic gains are defining the fifth period.

[6] Jamil Anderlini, *China Grows 10.7% in Fourth Quarter,* FIN. TIMES (U.K.), Jan. 21, 2010. (reporting that during the fourth quarter of 2009, China's economy grew by 10.7%, even though inflation rose, fuelling fears that the Chinese government will take drastic measures to prevent overheating).

2.1.1. The shell of a modern economic system (1980-1989)

During the first stage, from the early 1980s to the violence after the protest at Tiananmen Square in 1989, the government set up the shell of a modern economic management system and created small privileged coastal zones to nurture global commerce and finance.[7] Among the important economic reforms, Xiaoping privatized farmlands, enabled the creation of several small and medium-sized companies, reduced price controls, and promoted global trade and FDI. Xiaoping set up privileged coastal zones to spur global trade and finance on. Market-based price inflation benefited farmers while it reduced the purchasing power of urban dwellers. The government also distributed land and animals to farmers.[8]

Up to this day, agriculture and industry still play a centripetal role in the Chinese economy as they both employ 70 percent of the population.[9] Nevertheless, agricultural production does not meet local demand. China now imports food from developing countries, including African agricultural exporters – a situation that might explain why the R4I contract that China signed with Ghana features the export of cocoa products to China.

2.1.2. Expanding market-oriented reforms (1990-2000)

The second period of the Chinese economic reforms took place in the 1990s and consolidated the gains of the first phase. The government augmented market-oriented reforms (profit incentives, modern management and privatized corporate systems),

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[7] Albert Keidel, *supra* Ch. 3 note 15, at 2.
[8] *Id.*
[9] Isabel Hilton, *supra* Ch. 3 note 28.

leading to millions of urban worker layoffs from overstaffed businesses.[10] It is worth noting that China is selective in its adoption of market-oriented reforms and that it has never fully embraced all the tenets of Western capitalism.

The Chinese government reinforced profit incentives and imposed price controls to help businesses internalize costs. These measures strengthened a progressively privatized Chinese corporate system. To reduce costs incurred as a result of the newly market-based wages, personnel-bloated businesses laid off their employees massively. These reforms triggered urban unemployment, rural poverty exacerbated by food price controls, and eventually widespread upheavals.[11] Rural hardship and lay-offs touched off wide social unrest. The government reacted to the turmoil with a set of new measures. It tried to assuage the unrest by introducing a new system of urban social safety nets, inadequate rural compensation, and vigorous law enforcement efforts.[12]

2.1.3. Double-digit growth (2001-2007)

From 2001 to 2007, market institutions, domestic investment and demand, and China's entry into the World Trade Organization (WTO) in 2001, propelled China's growth to more than 10 percent.[13] China's spectacular growth mainly relied on the country's own revenues.[14] Before the 2008 financial crisis, China had a growth rate average of 9.6% for almost two decades.[15] Economic growth in China has been such that some scholars like sociologist Immanuel Wallerstein have started to wonder whether it is still

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[10] Albert Keidel, *supra* Ch. 3 note 15, at 2.
[11] *Id.*
[12] *Id.*
[13] *Id.*
[14] Adama Gaye, *supra* Ch. 1 note 8, at 12.
[15] GREGORY C. CHOW, CHINA'S ECONOMIC TRANSFORMATION 64 (Blackwell Publishing 2007).

appropriate to regard China as a country of the global South.[16] These interrogations are not surprising given that this is the first time in history that emerging nations are a driving force of the world economy.

China fared well in terms of investment and trade. China, which is expected by some scholars to become the world's biggest economy by 2025[17] or 2035,[18] is the ideal FDI destination. In 2007, it attracted 80 billion US dollars. As a result, its foreign exchange reserves are the largest, having topped 1.9 trillion US dollars in September 2008. China has become a leader in international trade. With a total international trade of 2.18 trillion (1.22 trillion in exports and 955.8 billion in imports), China is the world's largest exporter and second largest trading power after the US. It is the world's workshop, not only for the first stages of export manufacturing but also for more advanced stages as it now manufactures laptop computers, iPods, and digital medical devices.[19]

The Shanghai Stock Exchange (SSE) (上海证券交易所), the fifth largest securities exchange in the world with a market capitalization of 3 trillion US dollars in 2007, is earning impressive amounts of initial public offerings (IPOs). Economically powerful Chinese companies listed on the SSE include PetroChina, China Mobile and the Industrial and Commercial Bank of China (ICBC).

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[16] Immanuel Wallerstein, How to Think About China, (Fernand Braudel Center, Binghamton University, Commentary No. 273, 2010), *available at* http://fbc.binghamton.edu/commentr.htm.
[17] KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 7.
[18] Albert Keidel, *supra* Ch. 3 note 15.
[19] DEBORAH BRÄUTIGAM, *supra* Ch. 2 note 11, at 9.

Before the 2008-2009 global financial crisis, China attracted FDI estimated at more than 60 billion US dollars per year.[20] The ensuing employment growth, coupled with tax reforms, attenuated the urban lay-offs and rural hardship carried forward from the previous period.[21] However, rapid economic growth had negative environmental externalities. Pollution, like national income, increased and spread in some areas; and Chinese people started to focus on social and environmental issues.[22]

2.1.4. Global financial crisis (2008-2009)

The fourth period is characterized by the 2008-2009 global financial crisis. The crisis, set off by the subprime mortgage loans debacle in the US housing market,[23] gripped financial and securities markets the world over. To offset the devastating fallout of the global financial crisis, the Chinese government pumped 586 billion US dollars into the national economy to stimulate local demand.

The centerpiece of the stimulus package was an enormous surge in infrastructure spending (including the 2008 Sichuan earthquake reconstruction) funded by a burst of bank lending.[24] Infrastructure spending accounted for 72 per cent of the entire stimulus package.[25] Chinese infrastructure spending maintained a certain demand level for copper, which cushioned the fallout of the global financial crisis on copper exporters like Zambia and the DRC.

[20] Adama Gaye, *supra* Ch. 1 note 8, at 12.
[21] Albert Keidel, *supra* note 15, at 2.
[22] *Id.*
[23] *See* R. Glenn Hubbard & Christopher J. Mayer, *First, Let's Stabilize Home Prices*, WALL ST. J., Oct. 2, 2008.
[24] Stephen Roach, *Insight: China's Consumers Key to Revival,* FIN. TIMES (U.K.), Jul. 28, 2009.
[25] *Id.*

2.1.5. Scientific development (2009-present)

Finally, the current period is characterized by the consolidation of economic gains, further expansion and a new 'scientific development' strategy, which rests on government and academic studies.[26] Freshly out of the 2008-2009 global financial crisis, China continues its worldwide expansion. On the very first day of 2010, China and the 10-country Association of South East Asian Nations (ASEAN) launched the biggest regional trade agreement, measured by population. Covering 1.9 billion people, the China-ASEAN Free Trade Agreement signed on the New Year day of 2010 would benefit China immensely as China enjoys easier access to the Asian markets and can sell goods that it can no longer sell to European and North American consumers.[27]

China is further expanding its business in Africa where it now plans to relocates some of its industries. It is working with the World Bank to see how it can move some of its labor- and energy-intensive industries through the establishment of SEZs and other special trade and economic cooperation zones in Africa.[28] Additionally, in line with its scientific development priorities, the Chinese government made junior leadership appointments in 2008 to last for the next 15 years and restructured ministries and agencies.[29]

Niall Ferguson observes that China has replicated the Western world's scientific method and capitalist enterprise, and that thanks to such strategy the past decade has

[26] Albert Keidel, *supra* Ch. 3 note 15, at 2.
[27] Kevin Brown, *Biggest Regional Trade Deal Unveiled*, FIN. TIMES (U.K.), Jan. 1, 2010.
[28] *See* Deborah Bräutigam, *Africa's Eastern Promise: What the West Can Learn from Chinese Investment in Africa*, FOREIGN AFF., Jan. 5, 2010 [hereinafter Deborah Bräutigam, *Africa's Eastern Promise*]; James Lamont & Geoff Dyer, *China Eyes Industrial Bases in Africa*, FIN. TIMES (U.K.), Dec. 3, 2009.
[29] Albert Keidel, *supra* note 7, at 2.

seen the balance of world economic power tilts east.[30] The crisis saw China leading other emergent economies, like Brazil and India, in weathering the financial storm as the developed economies were contracting,[31] thereby reviving theories that Brazil, Russia, India, and China (BRIC) are decoupling from the developed economies.[32] By January 2010, Chinese banks had eclipsed US banks as four Chinese banks (China Merchants Bank, China Citic, ICBC, and China Construction Bank) claimed four of the top five spots as the most highly valued financial institutions.[33]

2.2. China-Africa economic transmission channels

The rise of China, one of the world's fastest growing economy, is felt in Africa in terms of mounting investment, trade and development aid. In other words, investment, trade and development aid are the three principal channels through which growth in China is increasingly transmitted to African economies. Particularly, because Chinese economic relations with African nations center on resources, mining sectors in Africa and growth in China are communicating vessels. This interconnectedness between growth in China and growth in mining sectors in Africa is the essence of Sino-African economic complementarities. Having dealt with growth in China in the preceding section, the next section turns to growth in the mining sectors of resource rich and commodity dependent countries in Africa.

[30] Niall Ferguson, *The Decade the World Tilted East*, FIN. TIMES (U.K.), Dec. 27, 2009.
[31] David Oakley, *Emerging Market Equities Outperform West*, FIN. TIMES (U.K.), June 7, 2009.
[32] David Oakley, *Decoupling Gains New Group of Cheerleaders*, FIN. TIMES (U.K.), June 11, 2009. [hereinafter David Oakley, *Decoupling*]
[33] Patrick Jenkins, *China Banks Eclipse US Rivals*, FIN. TIMES (U.K.), Jan. 10, 2010 (reporting the results of a ranking of banks based on their share prices as a multiple of their book values: The four top slots were occupied by Chinese banks and the fifth slot by the Brazilian bank Itaú Unibanco).

3. Commodities and commodities markets

3.1. Oil and mining sectors

Africa is resource rich. Its oil and mining sectors have a great deal to offer to foreign investors. That economic base justify the terms found in the oil or mining component of existing R4I contracts. It therefore follows that, in order to understand the oil or mining component of R4I contracts, experts need a full mastery of the economics in oil or mining, insofar as they relate to China's FDI in Africa. This section explains the dynamics of China's FDI in Africa's oil and mining sectors from the early 21st century up to date.

China's interest and investment in Africa and Africa's 'virgin', largely unexplored and unexploited natural resources[34] have increased five-fold since 2001.[35] Even though China's FDI surge is manifold, the real size of China's investments is most probably 'under-reported'.[36] Driven by the acute demand for raw materials to lubricate its own booming economy, China has been investing colossal amounts of capital into the exploration and exploitation of hydrocarbons and minerals in African countries. Thus, by the end of 2006, China's total investment in Africa had amounted to over 11 billion US dollars.[37]

Although this figure is relatively unimpressive, the real economic impact of investments from China – and India to a lesser extent – has been to bid up commodity

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[34] AFRICAN DEVELOPMENT BANK & AFRICAN UNION. OIL AND GAS IN AFRICA 13 (Oxford University Press 2009) [hereinafter AFRICAN DEVELOPMENT BANK & AFRICAN UNION, OIL IN AFRICA].

[35] AFRICAN DEVELOPMENT BANK. AFRICAN ECONOMIC OUTLOOK 2007: MEASURING THE PULSE OF AFRICA (African Development Bank & OECD Development Centre 2007) [hereinafter AFRICAN DEVELOPMENT BANK, AFRICAN ECONOMIC OUTLOOK 2007].

[36] Jian-Ye Wang, *supra* Ch. 1 note 3, at 11 (showing that Chinese official figures radically understate the extent of China's investments in individual countries in Africa).

[37] Stephanie Hanson, *supra* Ch. 1 note 5.

prices, which in turn led to major windfall gains for the vast majority of African countries.[38] In 2007, Angola recorded a staggering 19.8% rate of annual economic growth, Equatorial Guinea a rate of 9.8%, Gabon 5.5%, Libya 6.8%, Nigeria 3.2%, São Tomé & Principe 7%, and Sudan 11.2%.[39]

Even in the midst of the unfolding global financial crisis, the prices of various commodities, especially oil and copper, tumbled and then resurged, mirroring optimism that China's economy was on course for a rapid recovery, buoyed by its government's 586 billion US dollars stimulus package.[40] While the rise in the world price of oil is certainly a major factor at play for some African countries, these data show that non-oil-rich countries also have had sound economic growth rate.[41] Table 11 below shows that, even if the GDP growth rates of resource rich countries in Africa dropped in 2009 on account of the financial crisis, especially Botswana, most resource rich African countries experienced positive economic growth and fared well above the world and the EU average GDP growth rates. The relatively positive performance by commodity dependent countries in Africa stood on the shoulders of China's economic strength and demand for primary commodities during the 2008-2009 world economic crisis.

Table 11: GDP growth rates and GDP (PPP)[42] 2009

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[38] UNITED NATIONS COMMISSION FOR AFRICA, ECONOMIC REPORT ON AFRICA 2007: ACCELERATING AFRICA'S DEVELOPMENT THROUGH DIVERSIFICATION 22 (United Nations Commission for Africa 2007); African Development Bank, *Africa Records Highest Growth in Two Decades*, WHAT'S NEWS, May 14, 2007, *available at* http://www.afdb.org/en/news-events/article/africa-records-highest-growth-in-two-decades-2632/ (last visited Jan. 1, 2008).

[39] AFRICAN DEVELOPMENT BANK, AFRICAN ECONOMIC OUTLOOK 2008 52 (African Development Bank & Development Centre of the Organisation for Economic Co-operation and Development 2008). [hereinafter AFRICAN DEVELOPMENT BANK, AFRICAN ECONOMIC OUTLOOK 2008].

[40] Chris Flood, *Oil and Copper Lead Commodities Higher*, FIN. TIMES (U.K.), Apr. 14, 2009.

[41] Harry G. Broadman, *supra* Ch. 3 note 173, at 89.

[42] This abbreviation stands for 'purchasing power parity'. According to the CIA World Factbook (2010), PPP is the 'measure most economists prefer when looking at per-capita welfare and when comparing living conditions or use of resources across countries. The measure is difficult to compute, as a US dollar value has to be assigned to all goods and services in the country regardless of whether these goods and

Resource rich countries in Africa	**GDP growth Rate (in %)**	**World rank**	**GDP (PPP) (in billion US dollars)[43]**	**World rank**
China[44]	***8,4***	***5***	***8, 767***	***3***
Congo (Brazzaville)	7,5	6	17	128
Liberia	5	24	2	188
Ghana	4,7	26	37	98
Egypt	4,5	29	470	27
Tanzania	4,5	30	58	85
Zambia	4,5	31	19	126
Libya	4	37	92	71
Morocco	4	38	145	59
Uganda	4	39	353	33
Nigeria	3,8	43	42	95
Sudan	3,8	45	93	70
Zimbabwe	3,7	47	0,3	210
Algeria	3,4	51	244	46
Côte d'Ivoire	3,2	54	36	99
Niger	3,2	55	10,7	145
Mali	3	61	15	133
Dem. Rep. Congo	3	65	22	118
Sierra Leone	2	85	4,5	160
Togo	1,8	87	5,2	156
Mauritania	1,5	91	6	153
Tunisia	0,7	102	84	73
Namibia	0,7	103	14	136
Angola	-0,2	110	134	62
Chad	-1	125	16	132
World[45]	***-1***	***126***		
Guinea	-1	128	10,6	146
Cameroon	-1,5	136	43	94
Equatorial Guinea	-1,8	139	23	115
South Africa	-1,9	143	489	26
Gabon	-2,8	159	21	119
European Union[46]	***-4***	***181***		
Botswana	-12	209	24	111

Source: CIA, *World Factbook* (2010).

services have a direct equivalent in the United States (for example, the value of an ox-cart or non-US military equipment); as a result, PPP estimates for some countries are based on a small and sometimes different set of goods and services.'

[43] GDP PPP figures have been rounded up, except where the rounded-up GDP PPP figures for two or more countries are the same.

[44] China is not an African country but it is only included in the table for comparative purposes and because of the emphasis in this dissertation on China's FDI in the mining sectors of Africa.

[45] The world GDP growth rate average is included in the table only for comparative purposes.

[46] The EU GDP growth rate average is included in the table only for comparative purposes.

As reported by the World Bank in 2007, the 43.5 percent increase in FDI mainly concentrated in oil exporting and other mineral resource rich sub-Saharan countries.[47] To be sure, in 2004 the top ten Chinese FDI destinations were, in order of importance, Sudan, Nigeria, South Africa, Guinea, Benin, Madagascar, Republic of Congo, Côte d'Ivoire, Sierra Leone, and Gabon.[48] Although data on global sectoral FDI flows to Africa are incomplete, by looking at FDI destinations in Africa, one can conclude that a large proportion of FDI still goes to the oil sector.[49]

It is small wonder that China, which needs to sustain its resource-intensive economic growth and development, invests in the mining sectors of Africa, the world's least developed yet most endowed continent. As early as 1989, the World Bank had already declared that Africa is the most endowed continent in terms of natural resources.[50] With newly found oil in Sierra Leone, Ghana, Uganda, to mention but a few examples, that declaration might well be an understatement today.

Africa reportedly holds stocks of extractable oil, gas, coal and uranium worth between 13 trillion and 14.5 trillion US dollars, with an additional 1.7 trillion US dollar potential in areas such as agriculture, tourism, and water.[51] It should therefore not astonish analysts that emerging countries are aggressively investing in Africa. The

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[47] AFRICAN DEVELOPMENT BANK. AFRICAN DEVELOPMENT BANK, AFRICAN ECONOMIC OUTLOOK 2008, s*upra* note 39; WORLD BANK. GLOBAL DEVELOPMENT FINANCE 2007: THE GLOBALIZATION OF CORPORATE FINANCE IN DEVELOPING COUNTRIES 136 (World Bank 2007); UNITED NATIONS COMMISSION FOR AFRICA. ECONOMIC REPORT ON AFRICA 2007, *supra* note 38.
[48] HARRY BROADMAN, *supra* Ch. 1 note 51, at 13.
[49] Harry G. Broadman, *supra* Ch. 3 note 173, at 103.
[50] WORLD BANK, SUB-SAHARAN AFRICA: FROM CRISIS TO SUSTAINABLE GROWTH (World Bank 1989).
[51] *Africa Has $1.7 Trillion Potential Wealth: Study*, REUTERS 1 Jul. 1, 2010, *available at* http://af.reuters.com/article/topNews/idAFJOE66007Q20100701 (last visited Sept. 2, 2010).

'dark' continent, now one of the fastest growing regions in the world,[52] holds 10 percent of the world's oil reserves, 40 percent of its gold, and 80 to 90 percent of its chromium and platinum.[53] In 1998, out of 103 minerals, Africa held[54]

> the most estimated reserves of 24 (or 23%), second most of 7 (7%), and third most of 21 minerals (20%). It also held more than 50% of cobalt, gold, diamonds, vanadium, manganese, phosphate, platinum, chromium, and iridium reserves. It held most of the world's iron and copper ore; and third most of the world's bauxite.

China extracts different minerals in different sub-Saharan African countries. China extracts copper and cobalt in Zambia and the DRC. It buys wood in Gabon, Cameroon, Mozambique, Equatorial Guinea and Liberia. It is getting platinum and chrome in Zimbabwe. China also extracts iron, coal, nickel and aluminium from various countries on the continent.

Oil, this globally strategic commodity, makes oil exporters in Africa (see Table 6 below) highly attractive in FDI terms. Oil and gas satisfy two thirds of global energy requirements[55] while the three main non-renewable fuels (oil, natural gas and coal) meet 90 percent of global commercial energy consumption.[56] Half of the oil that China imports from Africa comes from Angola. In addition to exploitation, China engages in exploration ventures. In April 2006, President Hu Jintao ended his official tour in

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[52] MCKINSEY GLOBAL INSTITUTE. LIONS ON THE MOVE: THE PROGRESS AND POTENTIAL OF AFRICAN ECONOMIES 9 (McKinsey & Company 2010).
[53] *Id.* at 15.
[54] MAKONNEN ALEMAYU, INDUSTRIALIZING AFRICA: DEVELOPMENT OPTIONS AND CHALLENGES FOR THE 21TH CENTURY 93-98 (Africa World Press1999); FRANS VILJOEN, INTERNATIONAL HUMAN RIGHTS LAW IN AFRICA 568 (Oxford University Press 2007).
[55] AFRICAN DEVELOPMENT BANK & AFRICAN UNION, OIL IN AFRICA, *supra* note 34, at 75.
[56] *Id.* at 27.

Africa by entering into an offshore exploration agreement with Kenya in an area of 115, 343 square kilometers north and south of Kenya.[57]

Table 12: Proved reserves of oil in Africa 2009

	Country	**Proved reserves (in million barrels)**	**World rank**
	Saudi Arabia[58]	*266,000*	*1*
1	Libya	43,600	9
2	Nigeria	36,200	10
3	Algeria	12,200	16
4	Angola	9,000	18
5	Sudan	5,000	24
6	Egypt	3,700	28
7	Gabon	2,000	33
8	Congo-Brazzaville	1,600	34
9	Chad	1,500	36
10	Equatorial Guinea	1,100	39
11	Cameroon	200	56
12	Dem. Rep. Congo	180	59
13	Côte d'Ivoire	100	66
14	Mauritania	100	67
15	South Africa	15	85
16	Ghana	15	86
17	Benin	8	91
18	Morocco	0, 750	97
19	Ethiopia	0,430	98

Source: CIA, *World Factbook* (2009)

3.2. Commodities markets

Commodities markets inform the terms of R4I contracts. They particularly inform the oil or mining component of R4I contracts. Demand by China and other emerging nations for raw materials drives up commodity prices; commodity prices determine the

[57] Regina Jere-Malanda, *supra* Ch. 3 note at 39, at 14.
[58] Saudi Arabia is obviously not an African country but it has been included in the table for purely comparative purposes.

amount of raw materials countries in Africa would be willing to exchange for infrastructure. It is the same price mechanism and the inherent instability of commodities markets that influence the decision that R4I contracts be spot price rather than fixed price contracts. Indeed, if demand for primary commodities frequently shifts up and down, as is the case with markets for oil and mineral resources, it is less risky for resource rich countries in Africa to agree that R4I contracts be spot price contracts.

Commodity markets are exchanges where raw and primary products are traded by direct physical trading or by derivatives trading. Traders buy and sell commodities in standardized contracts. Brazilian Mercantile and Futures Exchange (BMF), Chicago Mercantile Exchange (CME) Group, Bursa Malaysia (MDEX), Central Japan Commodity Exchange, Climex, New York Stock Exchange (NYSE) Euronext and the Australian Securities Exchange (ASX), are some of the major commodities exchanges in the world.

There are at least four categories of traded commodities, namely agricultural commodities (grain, food and fiber), livestock and meat, energy commodities, and minerals. Traded energy commodities are West Texas Intermediate (WTI) crude oil, Brent crude, ethanol, natural gas, heating oil, Gulf Coast gasoline, reformulated blendstock for oxygenate blending (RBOB) gasoline, propane and uranium.

Minerals can be further grouped into precious metals (gold, platinum, palladium, and silver), industrial metals (copper, lead, zinc, tin, aluminium, aluminium alloy, nickel and recycled steel), and rare metals. Rare metals (germanium, cadmium, cobalt, chromium, magnesium, manganese, molybdenum, silicon, rhodium, selenium, titanium, vanadium, niobium, lithium, indium, gallium, tantalum, tellurium, and beryllium) are not traded on any commodities exchange. Producers, consumers and traders provide price information for these rare metals.

3.3. The 2008-2009 financial crisis

In 2008, the crisis in the capital markets sent the prices of the major commodities (like gold, oil, copper and cobalt) tumbling. From a foreign investment law perspective, the pertinence of the lessons learned from the 2008-2009 financial crisis is in reminding policy makers of the inherent volatility of commodities markets and the necessity to buffer from systemic risks. The advanced financial crisis depressed global demand for manufactured goods from Asia; and in turn Asia's appetite for Africa's commodities, to produce manufactured exports, waned.[59] The global credit squeeze also constrained trade financing, which exacerbated the demand slump and led to a collapse in commodity prices.[60]

3.3.1. Genesis of the crisis: The US housing market

The US housing market bit into the forbidden apple by introducing subprime mortgage loans.[61] Subprime mortgage loans led up to the financial and securities market crises. This 'depression from within,' the most dangerous type of recessions, is caused by the bursting of an investment bubble,[62] like the bursting of the housing bubble in 2008 in the US. A bubble is a steep surge in the value of some asset classes that cannot be explained by a change in any of the economic fundamentals that determine value, for instance improvements in product quality.[63]

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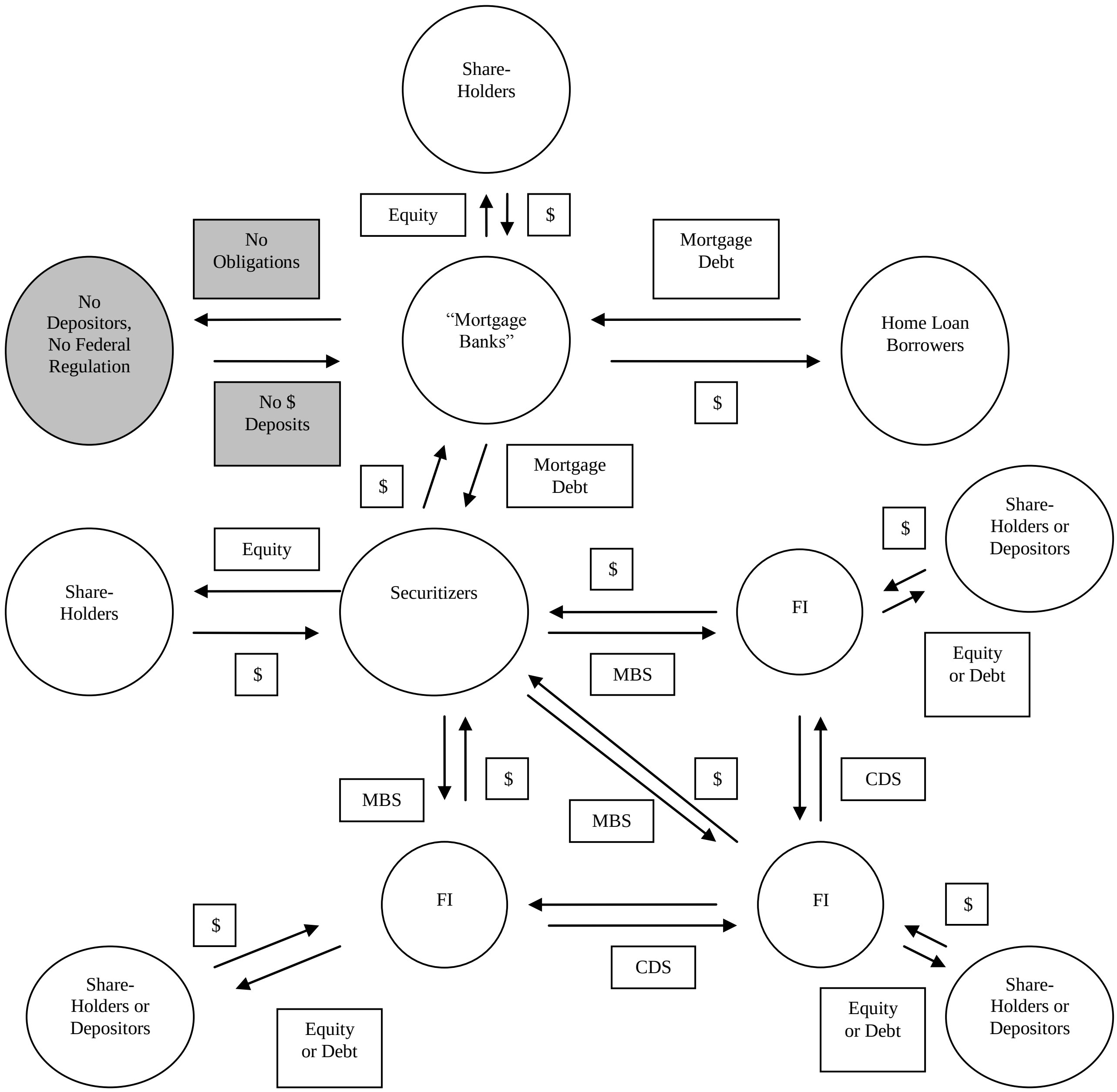
[59] Yvonne Mhango & Jeremy Stevens, *Tracing the Effects of the Global Financial Crisis on Sub-Saharan Africa*, CHINA MONITOR (S. Afr.), June 2009, at 4.
[60] *Id.*
[61] R. Glenn Hubbard & Christopher J. Mayer, *supra* note 23.
[62] RICHARD A. POSNER, A FAILURE OF CAPITALISM: THE CRISIS OF '08 AND THE DESCENT INTO DEPRESSION 10 (Harvard University Press 2009).
[63] *Id.* at 10-11.

The so-called subprime crisis spread out throughout the financial services industry like a cancer. The metastatic spreading of the subprime crisis is a complex scenario. Subprime borrowers obtained mortgage loans from mortgage banks. Mortgage banks, such as Countrywide Financial, sold subprime mortgages on the secondary market. Securitizers, especially Fannie Mae and Freddie Mac, then purchased subprime mortgages on the secondary market, pooled them, and securitized them, that is to say that they sold mortgages as mortgage-backed securities to financial institutions and investors on the open market. Financial institutions sold subprime mortgage-backed securities to their shareholders, their depositors and to one another. Mortgage-backed securities spread even farther within and without the US financial markets when financial institutions started exchanging credit default swaps. The US and later global financial crisis unraveled when the US homeowners started defaulting on their mortgages. This complex scenario can be graphically represented as follows:[64]

Figure 5: The US financial crisis (2008-2009)

[64] 'Anatomy of a Financial Crisis', Robert C. Hockett, Associate Professor of Law, Cornell Law School. Hockett notes: "FI" means Financial Institution – i.e., a Commercial Bank, Investment Bank, Investment Company, Pension Fund, Insurance Company, or like institution. "MBS" means mortgage-backed security. "CDS" means credit default swap. Shaded circle and boxes indicate that mortgage "banks" are not banks in the ordinary sense. The generic term for these institutions is more accurate: They are mortgage "originators." The best known of them these days is probably Countrywide Financial, taken over by Bank of America in June 2008 after financially faltering. The best known "securitizers" surely are Fannie Mae and Freddie Mac. Another notorious securitizer, this one lacking any "implicit federal guarantee," was the so-called "IndyMac," recently put in receivership.



Source: R. Hockett, Business Organization, 2009.

3.1.2. Incidence on commodity markets

The year 2008 marked the worst annual fall for commodity markets in decades. The Reuters-Jefferies Commodity Research Bureau (CRB) index almost fell below 40 percent in 2008, a record annual fall since its creation in 1956.[65] Oil was first to fall in July 2008, followed by 'anything dug from the earth.'[66] Furthermore, the Standard & Poors (S&P) Goldman Sachs Commodity Index (GSCI)[67] was on track to fall by more than 50 percent. Even global securities exchanges outperformed the S&P GSCI index despite the fact that in 2008 they recorded their worst year after the Great Depression.[68]

2008 also marked a year of spectacular highs and lows for commodities; and oil markets went through a year marked by record volatility. The spike in crude oil prices catapulted the value of other commodities in global commodities exchanges. In July, the Nymex West Texas Intermediate (WTI), the benchmark for US crude oil, peaked at 147.27 US dollars a barrel, a record high, and then went on to trade at less than 40 US dollars in the closing week of December, a record low.[69]

In Nigeria, Africa's second largest economy by nominal GDP, local financing problems and the global financial crisis plagued oil production, even if the financing problem predated the global financial crisis. In fact, Nigeria's difficulties in financing its share of joint venture oil projects indicated that Nigeria might not have been able to

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[65] Chris Flood, *Commodity Markets in Worst Annual Fall*, FIN. TIMES (U.K.), Dec. 31, 2008. [hereinafter Chris Flood, *Commodity Markets*]
[66] *Commodities Deflated*, FIN. TIMES (U.K.), Dec. 28, 2008.
[67] The S&P GSCI is the most commonly watched benchmark for commodity investors.
[68] Alistair Gray, *US Stocks Suffer Worst Year Since Great Depression*, FIN. TIMES (U.K.), Dec. 31, 2008.
[69] Chris Flood, *Commodity Markets*, *supra* note 65.

keep oil production at the then prevailing levels or at double the then production levels, as it had initially planned.

Nigeria President Umaru Yar'Adua initiated legislation in August 2008 aimed at restructuring the Nigerian National Petroleum Corporation (NNPC) so as it can raise capital through credit markets, rather than relying on federal government revenues.[70] This may be a salutary move in the face of allegations by a government minister in July 2010 that the NNPC was insolvent with massive debts.[71] Unfortunately, the enactment of the proposed law would take some time. In the meantime, oil production at Nigeria's joint venture fields was set to decline from 1.7 million bpd to 700,000 bpd if NNPC failed to resolve the funding issue. That eventuality would have disastrous consequences for Nigeria as oil production accounts for 80 percent of federal government revenues.

In Sudan, official sources indicated that the country produced 500,000 bpd of crude, but Sudan was then planning to increase the country's production capacity to 600,000 bpd in 2009. Unfortunately, as the national budget forecasted, oil revenues would drop by 43.7 percent in 2009 from more than 60 percent in 2008 owing to the spreading financial crisis.[72] Sudan's raw and primary commodities are agricultural and mineral. Oil production has started to dominate the economy since October 2000, the bulk of oil reserves being in Muglad and Melut rift basins in the south of the country.

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[70] Randy Fabi, *Funding Crisis is Trouble for Nigeria Oil Sector*, REUTERS, Nov. 5, 2008, http://www.reuters.com/article/GCA-Oil/idUSTRE4A47I420081105.
[71] *Nigeria State Oil Firm NNPC Insolvent, Says Minister*, BBC AFRICA (U.K.), Jul. 13, 2010.
[72] Andrew Heavens, *Sudan Sees '09 Oil Revenue Down 44 Pct on Global Crisis,* THOMSON FINANCIAL NEWS, Dec. 1, 2008, http://www.fxstreet.com/news/forex-news/article.aspx?StoryId=bf1972fc-d1c4-4073-a012-e15829dd518d.

The Sudanese government attempted to compensate the revenue shortfalls by creating new taxes. Earlier, though, officials from Sudan's Ministry of Finance claimed that Sudan would not be vulnerable to the global economic downturn because they believed that US trade sanctions against Sudan had insulated it from western economies. Sudan Finance Minister Tarek Shalabi stated that the government would try to diversify the economy by also focusing on other sectors, primarily agriculture, which employs a large portion of the Sudanese population. In the agricultural sector, cotton and gum Arabic are the country's major exports, but Sudan is on its way to diversify its cash crops.

Pessimistic prospects for oil demand and widespread deleveraging by hedge funds in the wake of the collapse of Lehman Brothers, an iconic US investment bank, provoked a serious nose-dive of the demand for crude oil in the second semester of 2008.[73] Producers and OPEC countries individually and jointly decided to cut production, but the production reduction only had a modest effect on the price of base metals.

Nearly all commodities ended in the red, weighed down by the credit crunch. The grim predictions for the global economy sank the value of base metals even deeper into the financial abyss. Copper fell by 56 percent in 2008, after reaching a zenith of 8,930 US dollars a ton in July 2008.[74] FDI and GDP growth fell in copper exporting countries like Chile, Zambia and the DRC. Several copper and cobalt mines in the DRC's southern province Katanga – the country's main mining center – laid off more than 200,000 workers and closed down, frustrating government plans to revive the

[73] Chris Flood, *Commodity Markets, supra* note 65.
[74] *Id*.

Congolese dormant mining industry[75] in the second semester of 2008. Around 52 out of 56 mining companies in Katanga considerably scaled back their operations and output; and many international mining corporations folded their copper and cobalt mines.

Fortunately, some minerals did not suffer through the collapse of commodities markets. Gold and silver, which both serve as monetary metals, were some of the rare exceptions. Throughout 2008, the value of gold increased by 3.7 per cent, trading at 850 US dollars per ounce in commodities exchanges. However, the situation was different with light metals as the appreciation in the value of light metals held in London Metal Exchange warehouses is usually indicative of the recessionary moods of the economy.

Platinum, for its part, fetched as much as 904.50 US dollars a troy ounce following news that power shortages might diminish platinum output in South Africa, the world's largest producer of platinum.[76] Platinum is a central ingredient in autocatalysts, which is why the automobile industry is the biggest consumer of platinum.[77] However, car sales dramatically declined, thereby pushing down the value of platinum from a historic high of 2,230 US dollars in March 2008 to about 820 US dollars per ounce in September that same year.[78] As regards aluminium, its value went down by 378 percent in 2008 notwithstanding output reduction.

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[75] *Congo-Kinshasa: Mining Sector Suffers Amid Violence*, OXFORD ANALYTICA, Nov. 24, 2008, http://www.oxan.com/display.aspx?ItemID=DB147070.
[76] Chris Flood, *Commodity Markets, supra* note 65.
[77] *Id.*
[78] *See* Kwesi W. Obeng, *Convergence of Opinion on Africa's Mining Industry,* THIRD WORLD NETWORK AFICA, Dec. 23, 2008, http://www.twnafrica.org/index.php?option=com_content&view=article&id=85:convergence-of-opinion-on-africas-mining-industry-&catid=54:mining&Itemid=60.

The credit crunch negatively impacted on commodity prices by severely restricting the availability of credit from investment banks to hedge funds, thereby forcing hedge funds to reduce long positions, that is to say bets that price would keep increasing.[79] In addition, high petrol retail prices eventually discouraged motorists, and demand for crude oil sharply fell in 2008, the first time in 25 years.

More fundamentally, the 2008 financial crisis has dashed one idea and revived another one that both drove the bullish market for the past six years prior to the crisis. It dashed the idea that commodity exchanges were benefiting from a unique, once-in-a-century upswing.[80] Experts described the upswing as a 'supercycle' because of the mounting demand from the emerging economies, especially China, that desired to meet their equally increasing domestic urbanization and infrastructure spending.[81] The spread of the credit crisis blew away that idea as it slowed down economic activities in developed and developing countries alike. What is more, contrary to the 'supercycle' thesis, demand from emerging economies has since the 1970s contributed to the injection of much volatility, together with high prices, in markets for oil and petroleum products.[82]

Yet the financial crisis revived and verified – at least partially – the idea that China is 'decoupling' from the global economy and has become an independent source of global finance. The idea suggests that emerging markets can grow in spite of an economic downturn in the developed world[83] and implies therefore that the Chinese economy

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[79] Chris Flood, *Commodity Markets, supra* note 65.
[80] *Id*.
[81] *Id.*
[82] *See* AFRICAN DEVELOPMENT BANK & AFRICAN UNION, OIL IN AFRICA, *supra* note 34, at 17-18. Other factors that led to volatility in the oil and gas markets are decline in the spare capacity and the peaking of production in major producing countries, decline in global investment in the industry, lack of expansion in refinery capacity, supply and political uncertainties and insecurity, lack of a dominant actor in the market to manage over-supply and demand, and commodization of world oil.
[83] Jennifer Hughes, *Emerging Markets Surge on Hopes of Growth,* FIN. TIMES (U.K.), Aug. 3, 2009; David Oakley, *Decoupling, supra* note 32.

would be disconnected from the financial crisis. Strong internal demand for primary commodities would insulate the Chinese economy from the fallout of the financial crisis and push up the price of commodities,[84] particularly metals and energy commodities. China's stimulus package seems to have partially proved the decoupling theory right.

4. Infrastructure in Africa

4.1. Introduction

China's robust economic growth positively impacted infrastructure development in Africa. The lesson taught by the conclusion of R4I contracts in Africa is that resource rich countries can use the attractiveness of their oil and mining sectors as an incentive for foreign investors to direct finance to infrastructure development. This lesson is borne out by the structure of R4I contracts, which comprise the terms of both mining or oil contracts and infrastructure projects. To put the infrastructure component of R4I contracts in the right context, this part of the chapter presents the infrastructure deficit from which nations in Africa suffer. (The infrastructure contracts that ordinarily cater for infrastructure development are the object of Chapter 6) This contextualization enables the final part of this chapter to show that the combination of these traditional infrastructure contracts with oil or mining contracts through R4I contracts is highly strategic.

'Infrastructure' refers to all basic inputs and requirements for the proper functioning of the economy.[85] There are two types of infrastructure: Social and economic. Social

[84] Albert Keidel, *supra* Ch. 3 note 15, at 2-4.
[85] Afeikhena Jerome, Infrastructure in Africa: The Record 3 (African Development Bank, Research Paper No. 46 1999).

infrastructure facilitates the supply of skilled and healthy personnel to operate and manage other factors of production while economic infrastructure relates to facilities that provide societies with services necessary to conduct daily life and engage in productive activities.[86] Thus, 'mining infrastructure', as used in this dissertation, is a sub-type of economic infrastructure and refers to the facilities that provide investors with services necessary to engage in extractive activities. Health and education are good examples of social infrastructure; power, transport, ICT, and water are good examples of economic infrastructure.

From the very definition of infrastructure it is evident that economic development is inconceivable without social and economic infrastructure. Econometric evidence shows that infrastructure development has a positive impact on economic growth, especially infrastructure development in telecommunications, followed by roads and electricity.[87]

Africa's infrastructure stocks inherited from colonialism backed up reasonably strong economic growth from the early 1960s to the oil shocks in the 1970s.[88] From the 1970s until the mid-1990s, economies on the continent took a downturn. Strong demographic pressure and the urbanization attending it pushed up the demand for infrastructure, which outstripped the supply of infrastructure by governments in Africa. Yet in the 1990s, under the false assumption that the private sector would chip in money for infrastructure development, African governments and donor countries neglected infrastructure investment,[89] with often catastrophic economic consequences. Before the

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[86] *Id.*
[87] Antonio Estache, Africa's Infrastructure: Challenges and Opportunities, 1-2 (Feb. 2006)(High-Level Seminar organized by the IMF Institute and the Joint Africa Institute, 'Realizing the Potential for Profitable Investment in Africa,' Tunis, Tunisia, Feb. 28 – Mar. 1, 2006).
[88] *Id.* at 3.
[89] Backgrounder, High-Level Meeting on Africa's Development Needs, United Nations, Infrastructure: Strengthening the Foundations for Africa's Development (Sept. 22, 2008),

1990s, several governments in Africa were confronting budgetary crises, aggravated by misguided fiscal policies and the inefficiencies of the government agencies charged with the delivery of public infrastructure.[90]

It was not until after the mid-1990s that economic sluggishness, coupled with increasing interest in regional trade and other economic agreements, catalyzed change in Africa's economic structure.[91] During the second half of the 1990s, African governments were grappling with a stifling debt crisis and hurting for infrastructure finance. Under the circumstances, they cut resources allocated to public infrastructure investments in the hope that the private sector would replace the public sector in the financing of public infrastructure projects.[92] That period saw the private sector financing up to approximately 15 percent of infrastructure projects in Africa.[93]

4.2. The severe lack of infrastructure finance

The greatest obstacle to infrastructure development in Africa is the severe lack of project finance. Infrastructure projects require massive capital injections. In 2009, the World Bank estimated that Africa counted among its development challenges a major infrastructure deficit, with investment needs estimated at 20 billion US dollars per year and an associated funding gap on the order of 10 billion US dollars per year.[94] In 2010, it estimated that some 93 billion US dollars is needed to address Africa's infrastructure deficit and that Africa is already spending 45 billion US dollars a year on

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http://www.unis.unvienna.org/pdf/MDG_Africa_infrastructure.pdf [hereinafter Meeting on Africa's Development].

[90] Antonio Estache, *supra* note 87, at 4.

[91] *Id.* at 3.

[92] *Id.* at 5.

[93] *Id.*

[94] VIVIEN FOSTER *et al., supra* Ch. 1 note 23, at 29-30.

infrastructure, with a financing gap on the order of 31 billion US dollars.[95] The gap is divided almost equally between capital expenditure (22 billion US dollars) and spending on operation and maintenance (17 billion US dollars).[96]

Many experts have suggested that private capital, whether foreign or local, is the most apt to provide adequate funds for major infrastructure projects.[97] However, privately financed infrastructure projects are difficult for a number of reasons: The lack of relevant information on the part of Western or capital-exporting nations; many host countries do not possess adequate experience in policy-making and negotiations; a great number of host countries, which are typically developing countries, do not have the legal framework, the administrative regulations, the documentation or properly organized departments and ministries as well as a lack of professional training.[98] Another hurdle is the administrative law that half African countries have inherited from the European colonizers. Administrative law, which the French legal system has deeply influenced, contains interventionist powers which authorize governments to modify certain infrastructure projects.[99]

Apart from being costlier, infrastructure in Africa trails behind those found in other continents quantitatively and qualitatively. Africa receive the smallest share of global FDI and infrastructure finance because of the low creditworthiness of most countries in Africa, the limits of local financial markets, the low profitability and the risk profiles

[95] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 1,8.
[96] *Id.* at 31.
[97] Don Wallace, *Private Participation in Infrastructure and the Provision of Public Services – Inevitable and Difficult*, 18 TRANSNAT'L LAW. 118, 117-123 (2004).
[98] *Id.*
[99] *Id.*

characteristic of a lot of infrastructure projects.[100] In addition, armed conflicts have destroyed a large amount of physical infrastructure, even if the number of armed conflicts in Africa has considerably decreased since the bloody decades that followed the series of independence in the 1960s. Consequently, infrastructure in Africa is last on most standard indicators, except for the ICT sector where sub-Saharan Africa performs better than South Asia, as shown in Table 13 below.

Table 13: Infrastructure development indicators in Africa and other regions

Indicator	Sub-Saharan Africa	South Asia	East Asia and Pacific	Europe and Central Asia	Latin America and Caribbean	Middle East and North Africa
Transport						
Paved road density	49	149	59	335	418	482
Total road density	152	306	237	576	740	599
ICT						
Mainline teledensity	33	39	90	261	197	100
Mobile teledensity	101	86	208	489	350	224
Internet density	3	2	7	16	14	10
Power						
Generation capacity	70	154	231	970	464	496
Electricity access	18	44	57	—	79	88
Water and sanitation						
Improved water	63	72	75	87	90	85
Improved sanitation	35	48	60	78	77	77

). Road densities meas-
ers per thousand popu-
ctricity and to improved

— = not available.

Source: v. Foster *et al., Building Bridges* (2009) 30.

[100] Robert Sheppard *et al.*, Financing Infrastructure in Africa: How the Region Can Attract More Project Finance, GRIDLINES No. 3 2006, http://www.globalclearinghouse.org/infradev/assets%5C10/documents/PPIAF%20%28Sheppard%20et%20al%29%20-%20Financing%20Infrastructure%20in%20Africa%20%282006%29.pdf.

The continent is in desperate need of substantial project finance for its infrastructure projects. Because capital requirements for the construction and rehabilitation of infrastructure are significant, major infrastructure projects rely more and more on a combination of public- and private-sector finance and regional cooperation projects to pool capital and spread investment costs.[101] Infrastructure projects with private participation are often financed with a mix of equity and nonrecourse debt – debt contracted by the project company without recourse to the sponsors (i.e. project finance).[102]

China has for a long time invested in Africa in various fields, including infrastructure. However, after 2003, Chinese infrastructure investments on the continent have scaled up in many countries and today China is the leading infrastructure financier in Africa. After 2003, China's infrastructure finance jumped from 500 million US dollars per year up to around 1.3 to 1.7 billion US dollars per year in 2004 and 2005, topping 7 billion US dollars in 2006 before sliding back to around 4.5 billion US dollars in 2007.[103] Upwards of 35 African countries have benefited from Chinese infrastructure finance,[104] the biggest recipients including Angola, Ethiopia, Sudan, the DRC, and Equatorial Guinea. Most Chinese-financed infrastructure projects are small in size and do not generally exceed 50 million US dollars, except for half a dozen megaprojects – and most R4I contracts – worth more than 1 billion US dollars.[105]

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[101] UNITED STATES INTERNATIONAL TRADE COMMISSION, SUB-SAHARAN AFRICA: EFFECTS OF INFRASTRUCTURE CONDITIONS ON EXPORT, COMPETITIVENESS, THIRD ANNUAL REPORT x (United States International Trade Commission 2009).
[102] Robert Sheppard *et al.*, *supra* note 100, at 1.
[103] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 16.
[104] *Id.* at 17.
[105] *Id*.

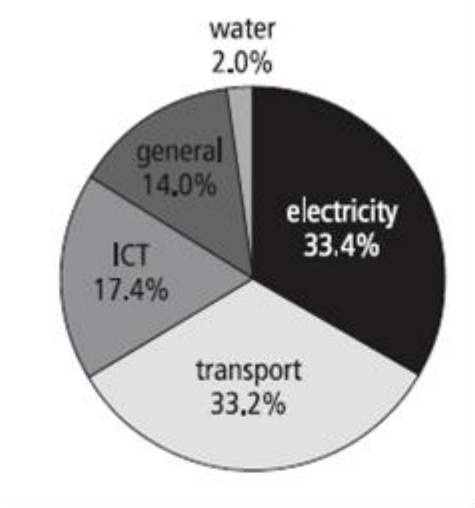
What makes China competitive in the industry is low-cost professional staff and not unskilled manual labor. Several state-owned corporations and construction collectives (run by local governments or communities in urban and rural areas) are now exporting construction services in many regions in the world, including Africa.[106] Before 1984, most Chinese state-owned corporations were general construction companies engaging in all trades necessary for construction work. These SOEs were large business organizations with a permanent workforce.

4.3. Infrastructure investment by sector

China's infrastructure investments can be by divided by sector, namely infrastructure – general, transport, information and communication technologies (ICT), power and water (including irrigation and sanitation). Two main sectors – power (especially hydropower) and transport (especially railroads) – make up the bulk of Chinese-funded infrastructure projects, as presented in Figure 6 below.[107] ICT sector investments in the main take the form of equipment supply while the water sector receives the smallest share of Chinese funds.[108]

Figure 6: Chinese infrastructure finance by sector 2001-2007

[106] HARRY BROADMAN, *supra* Ch. 1 note 51, at 254
[107] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 19.
[108] *Id.*



Source: V. Foster *et al., Building Bridges* (2009) 22.

4.3.1. Power

A recent World Bank report claimed that power is by far Africa's greatest infrastructure development challenge.[109] Africa's sectoral performance is worst when it comes to electricity access rates in both relative and absolute terms.[110] The World Bank report states that, whether measured by consumption, generating capacity, security of supply, Africa's power infrastructure, at 124 kilowatt-hours per capita in 2010 and a total generation of 350,000 gigawatt-hours in 1994, is falling and delivers but 10 percent of what it delivers in the developing world.[111] People in Africa consume oil-based power more uniformly than coal-based power, which prevails in Botswana, Zimbabwe, South Africa, Mozambique, Morocco and Niger.[112]

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[109] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 5.
[110] Antonio Estache, *supra* note 87, at 13.
[111] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 5; Afeikhena Jerome, *supra* note 85, at 35.
[112] *Id.* at 36.

Less than a third of sub-Saharan Africans have electricity.[113] In particular, women in Africa bear the brunt of the infrastructure deficiencies as they have to collect woods for cooking and heating in the absence of electricity while rural women have to walk 6 kilometers daily to rivers and springs to fetch water.[114] The rural population in Africa is the worst off in terms of access to electricity.[115] China's active involvement in power infrastructure development is therefore welcome as the continent has barely developed 5 percent of its hydropower potential.[116]

Power outages make firms operating in Africa lose 5 percent of their sales, and cost host governments 1 to 2 percent of their GDP.[117] Droughts, oil market crashes, conflicts and high growth or other structural issues are behind the power supply crisis in Africa, which adversely affects economic growth and productivity in national economies. In response, countries in Africa resort to a minimum of 750 megawatts of emergency power generations, which devour budgetary resources and cost up to 4 percent of GDP.[118]

It is the power sector, hydropower in particular, that gets the lion's share of Chinese infrastructure finance, although China has also been actively erecting thermal power stations in Sudan and Nigeria, and electricity transmission in Tanzania and Angola. The power sector in Africa has so far attracted more than 5.3 billion US dollars in cumulative financial commitments.[119] To put these figures on Chinese finance in broader perspective, private sector investment in infrastructure, including Chinese

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[113] Meeting on Africa's Development Needs, *supra* note 89, at 1.
[114] *Id.*
[115] Antonio Estache, *supra* note 87, at 13.
[116] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 22.
[117] *Id.*
[118] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 5.
[119] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 21.

investment, concentrates on ports, telecommunication (fixed lines), rail and electricity generation, in that order of importance.[120]

By 2008, China was participating on the order of 3.3 billion US dollars in 10 major dam projects in nine different countries in Africa, with the total value of these projects estimated at 5 billion US dollars.[121] The largest projects are the Mambilla scheme (2,600 megawatts) in Nigeria, the Merowe dam in Sudan (1,250 megawatts) and the Kafue Lower Gorge and Kariba North projects (more than 1,000 megawatts) in Zambia.[122] The combined hydropower generating capacity of these plants is in excess of 6,000 megawatts, which is a major portion of the 17,000 megawatts of Africa's total generating capacity.

Project finance has become a tool of choice worldwide for the finance of power and energy projects, like the construction of plants using coal, oil, gas as well as hydroelectric, combined heat, power, and renewable energy plants. As governments in developing countries remove 'natural' monopolies and liberalize energy markets, private sector companies are increasingly funding new power stations using project finance with guaranteed offtake purchase agreements.[123] This private sector investment into electricity generation makes the energy market more competitive, and provides reliable and consistent sources of energy for industry and business.[124]

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[120] Antonio Estache, *supra* note 87, at 21.
[121] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 21.
[122] *Id.*
[123] *See* Katharine C. Baragona, *Project Finance*, 18 TRANSNAT'L LAW. 139, 142 (2004).
[124] *Id.*

4.3.2. Rail and roads

Telecommunications and transport structure levels and patterns of development. They shape access to medical and educational services and the capacity of governments to regulate the behavior of people in society effectively.[125] Infrastructure weaknesses constrain industrial productivity and the development of a vibrant private sector.[126]

a) Railways

People and goods move through various modes of transport (road, rail and sea) in Africa as in the rest of the world. However, in most of Africa, corruption, obstructive government regulations and restrictions on entry to transport markets often cause bottlenecks at point of interchange.[127] Poor roads, rails and harbor infrastructure add 30 to 40 percent to the cost of goods traded among African nations.[128] In addition, most countries in Africa are landlocked and the long queues of freight at borders increase transport costs and impair the logistics performance of African countries.

China's experience with rail infrastructure in Africa goes as far back as the 1970s when China built the Tanzania Zambia railway.[129] China's financial commitments with respect to railways are estimated at 4 billion US dollars for the maintenance of more than 1,350 kilometers of existing railway lines and the construction of more than 1,600 kilometers of new ones.[130] With the largest deals struck in Nigeria, Gabon and Mauritania,[131] these commitments will expand Africa's total railway network of about 50,000 kilometers.

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[125] Michel Kerf & Warrick Smith, *Privatizing Africa's Infrastructure: Promise and Challenge* (World Bank Technical Paper No. 337, 1996).
[126] *Id.*
[127] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 204.
[128] Meeting on Africa's Development Needs, *supra* note 89, at 2.
[129] For more information on the Tanzania-Zambia railway, *see* JAMIE MONSON, AFRICA'S FREEDOM RAILWAY: HOW A CHINESE DEVELOPMENT PROJECT CHANGED LIVES AND LIVELIHOODS IN TANZANIA (Indiana University Press 2009).
[130] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 23.
[131] *Id.*

Regarding railway networks, the continent is largely disconnected, if not dilapidated, while intraregional commerce is negligible. With the exception of Eastern and Southern African rail networks, most railways lines on the continent are independent of one another. Existing railway lines do not connect countries in Africa; they are mostly routes to the sea. Nevertheless, since the 1980s, governments have embarked in liberalization programs and today national railway transport markets are open to private competition, which has effectively led to intermodal competition and operational efficiency.[132] Additionally, railway projects are, unlike a great deal of infrastructure projects, financially attractive for foreign investors. As of 2009, 47 railway networks were operating in 32 African countries, as illustrated in the Figure 7 below.

Figure 7: Rail networks in Africa

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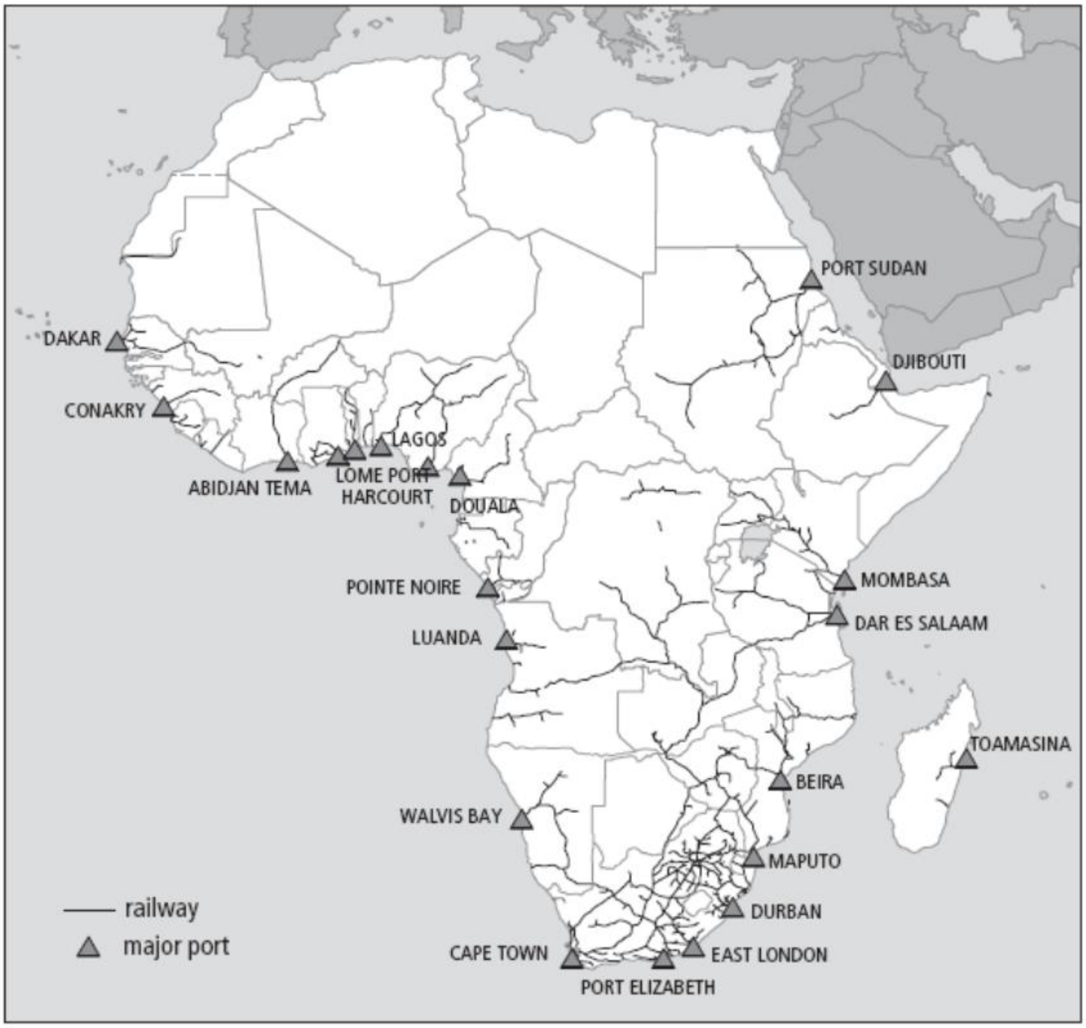
[132] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 229.



Source: V. Foster & C. Briceño-Garmendia, *Africa's Infrastructure* (2010) 230.

Between 1995 and 2005, railways carried more freight (about 80 percent) than passengers.[133] Yet service volumes on African railways in Africa remain very low at 250,000 tons a year and are comparable to a moderately busy branch line in many countries in other regions.[134]

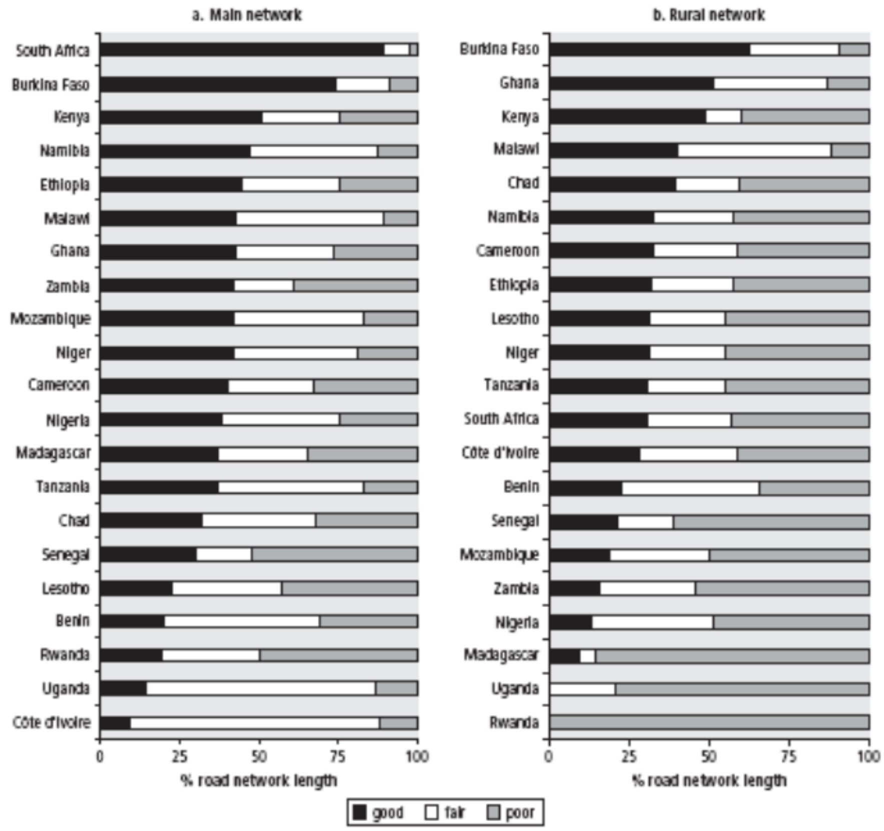
[133] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 233.
[134] *Id.* at 246.

b) Roads

The continent's progress on the construction and maintenance of roads has been better than on railways. In most of Africa, governments have established second-generation road funds independently financed by road user charges, contract-based maintenance management agencies, and autonomous road agencies. Around 80 percent of the main road networks are on average in good or fair condition.[135] Roughly half of the main road network is in good condition, one-third is in fair condition as opposed to one-quarter for rural roads (see Figure 8 below). In October 2010, a Chinese deputy commerce minister told the press that Chinese firms in Africa have built 60,000 kilometers of roads.[136] However, accurate assessment of road networks development in Africa is difficult to obtain because of the lack of reliable statistical information and the necessity to use surrogate indicators.[137]

Figure 8: Quality of main road networks in Africa

[135] *Id.* at 211.
[136] *China Defends Africa, US Investment Amid Tensions,* NATIONAL PUBLIC RADIO (U.S.), Nov. 1, 2010.
[137] Afeikhena Jerome, *supra* note 85, at 26.



Source: Foster & Briceño-Garmendia, *Africa's Infrastructure* (2010) 218.

Moreover, some countries in Africa (including Chad, Ethiopia, Ghana and Zambia) outsource most road maintenance work under performance-based maintenance contracts. Nonetheless, both roads and rails do not attract sufficient funding.

Moving on, the road expenditures in Africa are very high relative to the size of national economies, but they are still low in absolute terms.[138] Part of the high cost is due to the fact that, after roads are built, most African countries prioritize road building more than road maintenance, thereby neglecting the imperatives of recurrent costs and road

[138] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 215.

management.[139] Other problems relating to roads include the fact that road condition improvements did not extend as much to rural areas, high road traffic freight costs, and low mobility as a result of costs and transport unavailability.

Despite the general consensus that agriculture is vital to economic growth, only one-third of rural inhabitants live within 2 kilometers of an all-season road.[140] At 204 kilometers of road per 1,000 square kilometers,[141] Africa has a density lower than that of other developing regions of the world and a lower concentration in main road networks. This is a troubling state of affairs given that roads are the means of transportation mostly used by people in Africa. Foster & Briceño-Garmendia even came to the conclusion that the idea of an interregional trunk road network, or Trans-African Highway, is far off because of many missing links and poor maintenance of key segments.[142] The lack of interregional road network should be a matter of great concern as landlocked countries – and Africa counts many of them – tend to be poorer and have less infrastructure than their counterparts, except for landlocked countries in Western Europe as they boast developed interregional transport networks.[143] However, the good news is that relative to its GDP Africa has a large road network and that main trunks in Africa do not lag behind other regions as much as other African road types.[144]

The thrust of institutional reforms is the second-generation road funds backed by fuel levies, even if the efficacy of fuel levies varies widely across the continent.[145] Difficulties arise because of, among other reasons, tax evasion, delayed transfers of

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[139] *See* Afeikhena Jerome, *supra* note 85, at 27.
[140] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 211.
[141] *Id.* at 212.
[142] *Id.* at 212.
[143] Afeikhena Jerome, *supra* note 85, at 4 and 45.
[144] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 212.
[145] *Id.* at 213.

revenues and less-than-planned collection of levies.[146] In addition, toll roads, which represent less than 1 percent of road networks and are overwhelmingly concentrated in South Africa, have a commercial potential only in South Africa and Nigeria,[147] due to the larger size of their economies. The reason for this situation is that only South Africa and Nigeria have a road network that can attract a minimum of 15,000 vehicles a day, which is the threshold traffic flow to make concessions economically viable.[148]

4.4. Project finance

The infrastructure component of R4I contracts embodies a single or several infrastructure sub-contractual arrangements. These sub-contractual arrangements often take the form of the most generally used infrastructure contracts. Infrastructure contracts, commonly referred to as project finance, deal with the methods of construction, the financing and operation of the facility, and agreed procedures to be implemented in the event of default, failure to complete the construction, and failure to perform during the operational period. Scott Hoffman defines project finance as a term generally referring to[149]

> a non-recourse or limited recourse financing structure in which debt, equity, and credit enhancement are combined for the construction and operation, or the refinancing, of a particular facility in a capital-intensive industry, in which lenders base credit appraisals on the projected revenues from the operation of the facility, rather than the general assets or the credit of the sponsor of the facility, and rely on the assets of the facility, including any revenue-producing contracts and other cash flow generated by the facility, as collateral for the debt.

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[146] *Id.*
[147] *Id.*
[148] *Id.*
[149] SCOTT L. HOFFMAN, THE LAW OF BUSINESS OF INTERNATIONAL PROJECT FINANCE 4-5 (Kluwer Law International 2001), [hereinafter SCOTT L. HOFFMAN, INTERNATIONAL PROJECT FINANCE]; *see also* Scott L. Hoffman, *A Practical Guide to Transactional Project Finance: Basic Concepts, Risk Identification, and Contractual Considerations,* 45 BUS. LAW. 181 note 1 (1989).

For Jeffrey Delmon, ‘project finance,’ is a type of debt finance that can be defined as the financing of a major new project or large project expansion when the lenders place primary reliance on the revenues of the new project for repayment, and the assets and contracts of the project as security.[150] From the two definitions, it is clear that project finance can involve either nonrecourse or limited debt; and that lenders rely above all on the revenues and assets of the borrower for the grant and repayment of the finance. However, project finance is not synonymous with the raising of funds to pay for the costs of *any* project.[151]

The most often cited benefits of project finance are the non-recourse nature of the debt, the ability of the project's sponsors to maximize their equity leverage while maximizing any tax benefits; and the ability to provide off-balance sheet treatment.[152] Project finance is used by governments the world over in all sorts of large-scale infrastructure projects, especially in infrastructure and energy development. Some advantages and disadvantages of project finance are presented in Table 14 below.

Table 14: Advantages and disadvantages of project finance

Criteria	**advantages**	**disadvantages**
limitation/restriction on recourse	nonrecourse debt	
debt treatment	off-balance	
	leveraged debt	
	avoidance of restrictive covenants in other transactions	lender supervision
financing terms	favorable	lender reporting requirements
	internal capital commitment policies	increased insurance coverage

[150] Katharine C. Baragona, *supra* note 123, at 139.
[151] SCOTT L. HOFFMAN, *supra* note 149, at 6.
[152] Katharine C. Baragona, *supra* note 123, at 140.

political risk	political risk diversification	incentive to take unacceptable risks
risk allocation	widely shared	complex
collateral	limited to project assets	
lenders/loans	incentive for lenders to work out rather than foreclose on troubled loans	increased lender risk
	matching of specific assets with liabilities	
credit opportunities	Expanded	high interest rates and fees

Source: Adapted from Scott L. Hoffman, *The Law and Business of International Project Finance* (2001) 12ff.

Project finance is ordinarily deployed under the framework of public-private partnerships (PPP). However, the Chinese signature business model envisages a greater role for the state as state-owned corporations from China step into the shoes of traditionally private investors to enter into economic relations with African countries.

5. The strategic value of the R4I contractual model

To find out the strategic value of the R4I contractual model, game theory is rich in insight. Game theory is the study of strategies (i.e. choices) adopted by players or agents (i.e. actors). Solutions to game theory modeling are dependent on assumptions, so that they are rarely right in absolute terms but almost always right relative to the assumptions of the model.[153] When only two players are involved, at least two assumptions about the players' mutual knowledge apply. The players are assumed to have mutual knowledge of the game (i.e. rules of the game, the payoff structure, etc.)

[153] RICHARD A. IPPOLITO, ECONOMICS FOR LAWYERS 381 (Princeton University Press 2005).

and the players' Bayesian rationality (i.e. knowledge that the two players are rational and that each player knows the other player is rational).[154]

In the model below, Africa and China are assumed to be aggregated individual players acting just like a single player in, let us say, a soccer game. The values attributed to Africa and China in the model are rough estimates of the actual demand for resources and infrastructure by Africa and China. The values are not accurate but they are not entirely arbitrary as they originate from available economic data. The main point of these rough estimates is not precision but illustration of the strategic value of the resource-for-infrastructure model over ordinary investment contractual models.

The fundamental assumption in the model is that Africa wants China's investments in its infrastructure and China wants to import Africa's mineral resources. Africa attaches a value of 45 to China investing in Africa's infrastructure. '45' represents the 45 billion US dollars that Africa is already spending annually on infrastructure.[155] China attaches a value of 28 to its investments in the mining sectors of Africa. '28' represents the rounded up proportion of China's trade with Africa that goes to the extraction of mineral resources in 1979-2000.[156] Sino-African trade was valued at slightly more than 100 billion US dollars.[157] 28 percent of 100 billion US dollars is 28 billion US dollars. The latter amount is therefore a very rough estimate of the portion of trade devoted to resource extraction. China attaches a value of 16 to financing and building infrastructure in Africa. '16' represents the 16 billion US dollars of total financing

[154] Francesco Farina, *Game-Theoretic Solutions to Endogenous Contractual Incompleteness, in* LEGAL ORDERING AND ECONOMIC INSTITUTIONS 191 (Fabrizio Cafaggi *et al.* eds. 2007).
[155] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 1 and 8.
[156] *See* Table 11 below. Resource extraction amounted to 188 million US dollars out of a total investment value of 681 million US dollars. That means that resource extraction accounted for 27,606461% of total investment. If that figure is rounded up, resource extraction becomes 28%.
[157] *Sino-African Trade Passes $100 Bln Mark in 2008,* XINHUA (P.R.C.), Jan. 27, 2009.

commitments that China made with respect to infrastructure projects in Africa in 2008.[158] All the values attributed to Africa and China represent their respective payoff matrix, as presented in Table 15 below.

Table 15: The strategies of Africa and China

	Africa	
China	Resources	Infrastructure
Resources	A: 28 28	B: 28 45
Infrastructure	C: 16 28	D: 16 45

In Cell A, Africa and China attach the same value to resource extraction. In all other cells, they attach different values to resource extraction and infrastructure investment. Though they know each other's purposes well through bilateral consultations, the payoffs that appear in Table 15 represent their intrinsic interests in resource extraction and infrastructure investment. China prefers to extract resources no matter what Africa does. China has a dominant strategy. A dominant strategy is when a person's best choice is the same, no matter what the others do.[159] Likewise, Africa prefers infrastructure investment no matter what China does. Africa also has a dominant strategy.

The payoff matrix produces a compelling case for a cooperative coordination game that will yield a greater payoff to Africa and China than a non-cooperative game. The coordination of independent actions in situation of multiple equilibria, like in the Africa-China model, is the most straightforward reason to use contracts.[160] China will

[158] VIVIEN FOSTER ET AL., *supra* Ch. 1 note 23, at 19 (stating that China's total financing commitments with respect to infrastructure projects in sub-Saharan Africa is 15, 968 billion US dollars).
[159] Avinash Dixit & Barry Nalebuff, *Game Theory*, *in* CONCISE ENCYCLOPEDIA OF ECONOMICS (David R. Henderson ed. 2008); RICHARD A. IPPOLITO, *supra* note 153, at 382.
[160] Benjamin E. Hermalin, *supra* Ch. 3 note 233, at 8.

choose Cell A and B because the payoffs in those cells increase by 12 (28 – 16) compared to cells C and D. Africa will choose cells B and D because the payoffs increase by 17 (45 – 28) compared to cells A and C. It is evident that the only cells where the payoffs of China and Africa converge is Cell B. B is therefore the optimal solution for Africa and China, a solution that requires both parties to coordinate their actions by agreement, contractual or otherwise. And, when an agreement serves pure coordination purposes, they are self-enforcing because it is in each party's private interest *ex post* to comply with the chosen equilibrium or agreement.[161]

The agreement that Africa and China will find may fill one or other of these contractual forms. To extract resources, Africa and China may choose a production sharing agreement (PSA), the most used form of mining and oil contracts. They may also choose a mining concession, a participation agreement, a service contract or a risk service agreement.[162] These contracts serve well the interests of Africa and China in Cell A. To finance and build infrastructure in Africa, Africa and China may choose any type of infrastructure contracts, a BOT, a BT or a BRT, as discussed in Chapter 2. Infrastructure contracts serve well the interests of Africa and China in Cell D. However, only resource-for-infrastructure contracts fully capture the interests of Africa and China in Cell B, the optimal solution for Africa and China. Table 15 shows that for traditional investment contracts to capture Cell B the parties will have to add infrastructure projects and mining or oil contracts whereas R4I contracts combine infrastructure projects and mining or oil contracts. The optimality of R4I contracts means that they are likely to be the long-term trend of Sino-African economic relations.

[161] *Id.* at 9.
[162] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 127-128.

They will remain in use for as long as macro-economic fundamentals would sustain their existence.[163]

Table 16: The contractual form of Sino-African economic complementarities

	Infrastructure	**Resources**
Africa	Africa has a major infrastructure deficit	Africa is a major exporter of natural resources
China	China has a globally competitive construction industry	China's manufacturing-based economy creates high demand for natural resource inputs
Investment Contracts	Infrastructure contract (e.g. BOT, BT)	Mining contract (e.g. PSA, concession agreement)
	Resource-for-infrastructure	

Adapted from Source: V. Foster *et al., Building Bridges* (2009) 29.

Finally, to the extent that R4I contracts reflect the purposes and interests of the African and Chinese parties given the constraints that the parties confront and other things being equal, then the R4I contractual model is also a predictive framework.[164] It predicts that under conditions X it should be expected that parties enter into a R4I contract; or, conversely, when parties sign a R4I contract, it should be assumed that conditions X are present. 'Conditions X' is a symbol for the macro-economic conditions that give rise to the desirability to enter into a R4I contract. Those macro-economic conditions were the subject of this chapter.

[163] Phone interview with Vivien Foster, Lead Economist, Sustainable Development Department, Africa Region, World Bank (Jan. 6, 2010).
[164] For the argument that the purposes of the parties may be the basis of a predictive model of the parties' behavior, *see* Victor P. Goldberg, *Relational Exchange: Economics and Complex Contracts*, AM. BEHAV. SCIENTIST 337-352 (1980).

6. Conclusion

In this chapter, the macroeconomic fundamentals underpinning R4I contracts have been dissected. At a macroeconomic level, intersectoral economic complementarities tie China's demand for raw materials to Africa's mining sectors. The meteoric rise of the Chinese economy happened by stages since 1978: The Chinese government first laid out the foundation of a modern economy; it expanded the economic reforms; and experienced double-digit economic growth, only bogged down by the 2008-2009 financial crisis. But China rapidly jumped back on its feet and reportedly passed the symbolic 10% GDP growth rate mark in the fourth quarter of 2009.[165]

The vitality and vibrancy of the Chinese economy has energized mining sectors in Africa, the world's most endowed. Chinese economy pushed up the foreign exchange earnings of resource rich countries in Africa. China's growth has also immensely contributed to infrastructure finance on the continent, making China the leading financier of infrastructure projects in Africa. Such contribution is welcome and well-timed given that most standard infrastructure development indicators show that Africa on the whole is behind other continents. Infrastructure project finance drags contracts into the picture and governs the relationship between the various participants in infrastructure investments. Because it consists in both mining and infrastructure investments, the R4I contract form captures best economic complementarities between China's demand for primary commodities and Africa's demand for basic infrastructure. The finding that R4I contracts are the contractual form of Sino-African economic complementarities is the chapter's main submission over and above the chapter's suggestion that the terms of economic exchanges in the mining sector between China

[165] *China Posts Scorching Growth but Prices Heat Up*, FRANCE 24, Jan. 21, 2010, http://www.france24.com/en/20100121-china-posts-scorching-growth-but-prices-heat.

and resource rich African countries should assume, whenever possible, a R4I contract form. The next chapter sharpens its focus on the distinctive risks of investments, especially those pertaining to Africa's natural resources, the resource leg of R4I contracts.

CHAPTER 5

THE PIRSA

This chapter shows how China's FDI and South-South investment cooperation play out in environments in Africa overshadowed by a curse of resources. This dissertation calls the countries cursed by their resources on the continent 'politically insecure[166] and resource rich states in Africa' (PIRSA). For our purposes, the 'resource curse', a controversial and contested concept with unclear contents and boundaries, is the aggregate of factors that may preclude the full enjoyment of a wealth of resources by the majority of citizens in a given country.

This chapter describes the political economy of PIRSA and discusses the merits of the resource curse theory. It is thus divided in two major parts. The first part is a discussion on the resource curse theory, followed by an outline of take-home policy implications of the theory for foreign investment law. The second part sub-divides into two descriptive sections on the heterogeneity of countries in Africa, and the nature and specificity of PIRSA. By way of background, the chapter opens with an exposition of risk – a general notion and central idea in foreign investment law.

1. Risk in foreign direct investment

Africa is a place in the global South that foreign investors generally perceive to be risky, at any rate riskier than its sister continents. That the continent is a place where it

[166] As cautioned in the introduction of this dissertation, the phrase 'politically insecure' is not synonymous with 'political instability'. Rather, it relates to the foreign investment law concept of 'political risk.' *See* PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 1.

is not easy to do business is a fact appreciated by non-traditional investors like China, India and Russia, and by African entrepreneurs and the African diaspora who have decided to invest overseas.[167] 'Risk' effortlessly calls to mind all sorts of frightening ideas, like 'danger', 'insecurity', 'uncertainty', or 'loss'.[168] After all, etymologically, 'risk' comes from the Italian word *risco,* which means 'danger'. It is therefore right time to delimit the ambit of 'risk' in this dissertation.

1.1. Risk in general

Every analysis of risk requires a proper definition. In finance, 'risk' is a polysemic term that generally refers to the probability of permanent loss of assets. This rendition of risk is minimalist, but it adequately frames the following elaboration of the concept.

Risk is often (con)fused with uncertainty. Since the publication of *Risk, Uncertainty and Profit,* Frank Knight's is the generally accepted dichotomy,[169] and it says that risk is the set of calculable possible future outcomes for a relevant performance indicator, a known set of probabilities.[170] Conversely, uncertainty is what cannot be known because it is in some fashion unpredictable and therefore non-quantifiable.[171]

In recent years, several scholars have called into question the sanctity of Knight's dichotomy. Three schools of thought propose competing explanations of the relation between risk and uncertainty. The first school of thought contends that risk and

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[167] Harry G. Broadman, *supra* Ch. 3 note 173, at 92.
[168] *See* OXFORD DICTIONARY OF CURRENT ENGLISH 783 (4th ed. 2006), sv 'risk' (using the terms 'dangerous', 'bad', 'bad outcome', 'unpleasant', and 'loss,' to explain what 'risk' means).
[169] FRANK H. KNIGHT, RISK, UNCERTAINTY AND PROFIT (Chicago University Press 1921).
[170] COLIN WHITE & MIAO FAN, *supra* Ch. 2 note 4, at 27.
[171] *Id.*

uncertainty are distinct,[172] the second school counter that the two are inseparable,[173] and the third school adds that the two are part of the same continuum.[174]

For White & Fan, confusion concerning risk comes from a failure to distinguish between the characteristics of risk and the causes and consequences at different levels.[175] White & Fan then link characteristics, causes and consequences of risk with impact, incidence and response.[176]

Table 17: Risk characteristics, causes and consequences

Characteristics	Significant unpredictability of a key performance indicator(s) which indicates the achievement of an important strategic objective(s). (Variance in the performance indicator)	**Impact**
Causes	A set of risk-generating events or changes in behavior, sometimes called shocks usually interacting closely with the relevant contexts.	**Incidence**
Consequences	*Long-term consequences* – structural or organizational change e.g. the choice of organizational form such as the introduction of limited liability. *Medium-term consequences* – the adoption and implementation of generic risk control strategies by key players e.g. the adaptation of the capital structure. *Short-term consequences* – at the micro level, specific investment decisions and their financing; at the macro level, specific FDI inflows into particular countries.	**Response**

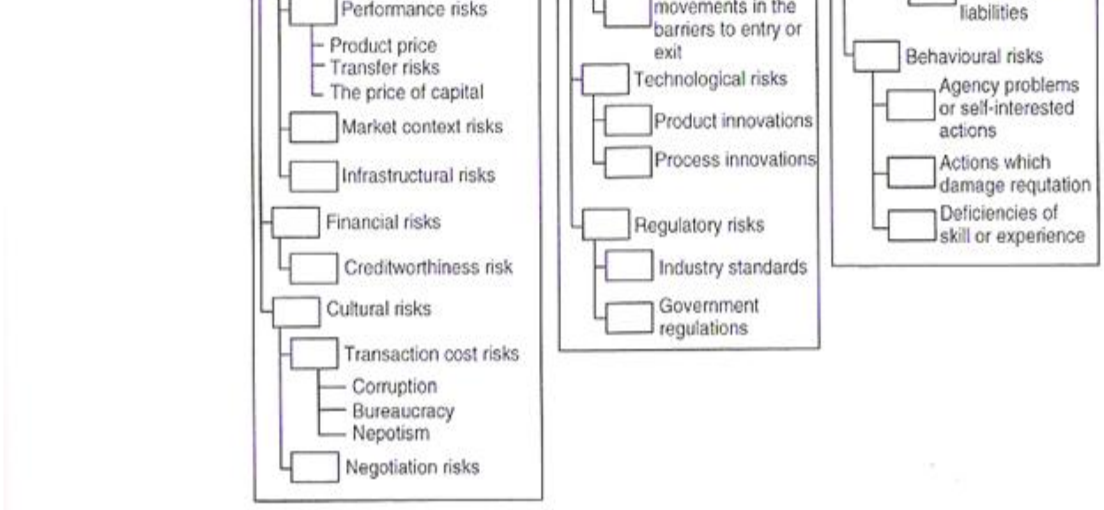
Source: C White & M Fan, *Risk and foreign direct investment* (2006) 29-30.

172 FRANK H. KNIGHT, *supra* note 4; J. DE GRAAF, THEORETICAL WELFARE ECONOMICS 116 (Cambridge University Press 1963).
173 TERJE AVEN, FOUNDATIONS OF RISK ANALYSIS: A KNOWLEDGE AND DECISION-ORIENTED PERSPECTIVE 28, 50 (John Wiley and Sons 2003) (arguing that risk is uncertainty about the world and that all probabilities are subjective assessments of uncertainty); K.D. Miller, *A Framework for Integrated Risk Management in International Business,* 23 J. INT'L BUS. STUD. 311-331 (1992)(finding some relation and some distinction between risk and uncertainty, but rejecting the presumption that risk is quantifiable).
174 Duncan H. Meldrum, *Country Risk and Foreign Direct Investment,* 35 BUS. ECON., 33-34 (2000)(stating that there exists a continuum between pure risk and pure uncertainty).
175 COLIN WHITE & MIAO FAN, *supra* Ch. 2 note 4, at 29.
176 *Id.*

1.2. Risk in foreign investment law

There are four levels of risk: Global, country, industry and enterprise risks (see Figure 9 below). This dissertation is preoccupied with country-level risks.

Figure 9: A typology of risk



Source: C. White & M. Fan, *Risk and foreign direct investment* (2006) 175

A fundamental concern of modern foreign investment law is that host states will behave opportunistically after the signing of an investment contract and the sinking by the foreign investor of costs into an investment project. This change in the bargaining positions of the parties once the costs of the projects have been sunk is known as ‘obsolescing bargain’ in the business-school literature of the 1970s, as one of ‘credible commitment’ in the transaction cost economics literature of the 1990s, and more recently as a problem of ‘political risk.’[177]

The rules of foreign investment law grant special protection to political risk. ‘Political risk’ is in general the probability that a host country will confiscate all or a portion of a foreign investor’s property rights located in the host country.[178] Political risk is different from commercial risk, which is a risk or loss assumed or suffered in the normal course of business.

[177] Jason Webb Yackee, *Bilateral Investment Treaties, Credible Commitment, and the Rule of (International) Law: Do BITs Promote Foreign Direct Investment*, 42 LAW & SOC'Y REV. 805, 807 (2008).
[178] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 1.

Foreign investment entails risks for both the investing corporations and the recipient countries. For investing corporations, risks increased after the end of colonialism. During the colonial period, an investor from an imperial state taking assets into the colonies had absolute protection.[179] Today, investors no longer have this kind of protection and usually resort to law to insure against investment risks. A few international and national investment insurance schemes, such as the Multilateral Insurance Guarantee Agency (MIGA) and the US Overseas Private Investment Corporations (OPIC), flourished to insure investors against investment risks. China has established Sinosure, a state-owned export credit insurance firm, to insure Chinese corporations operating abroad against non-payment risks.[180] Sinosure is involved in providing export credit insurance in the R4I contract between Ghana and China for the construction of the Bui dam.

Regime changes or changes to the existing political and economic policies of host states are the main political risks to foreign investment.[181] Those changes are the greatest threat to the effective implementation of R4I contracts in Africa.[182] Many factors may precipitate the materialization of political risks. These risk factors include ideological hostility, nationalism, ethnicity, changes in industry patterns, uncertain legal framework, the absence of a BIT, onerous contracts, regulation of the economy, human rights and environmental concerns, and contracts made by previous regimes.[183]

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[179] M. SORNARAJAH, *supra* Ch. 1 note 70, at 69.
[180] *See* China Export & Credit Insurance Corporation (Sinosure), http://www.sinosure.com.cn/sinosure/english/English.html (last visited May 19, 2010).
[181] M. SORNARAJAH, *supra* Ch. 1 note 70, at 69-70.
[182] This opinion was shared by Deborah Bräutigam (phone interview with Deborah Bräutigam, *supra* Ch. 3 note 238). Bräutigam believes that the greatest obstacle to the effectiveness of R4I contracts is political.
[183] M. SORNARAJAH, *supra* Ch. 1 note 70, at 77ff; PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 18ff.

The idea of former Nigerian President Olusegun Obasanjo to swap oil blocs for investments in various infrastructure projects in Nigeria provides a good illustration of the great risk that political changes pose to R4I contracts.[184] During oil licensing rounds in 2005, 2006, and 2007, Obasanjo granted a right of first refusal (RFR) to the Asian national oil corporations that would promise to build infrastructure in exchange for the oil blocs that Nigeria was auctioning. After Obasanjo left office in May 2007, his successor President Umaru Yar'Adua reviewed all and cancelled many sales of oil blocs allocated on the basis of Obasanjo's RFR.[185] The lesson to learn from the risk that a new government may cancel an investment contract signed by a previous government is that the timing of the negotiation and conclusion of investment contracts must always take electoral cycles into account.

There are four major types of political or non-commercial risk:[186] Expropriation, war and political violence, breach of contract, and currency restrictions.

1.2.1. Expropriation and other takings

Expropriations are 'the most severe form of interference with property,'[187] even though they are *prima facie* lawful.[188] States enjoy the right to expropriate or the 'right of eminent domain', which is an entitlement that emanates from the states' territorial sovereignty.[189] International law recognizes the right of states to change their economic and other policies. This right is an inherent aspect of state sovereignty. The Declaration

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[184] For more information on this illustration, see ALEX VINES *ET AL.*, *supra* Ch. 1 note 29; Gregory Mthembu-Salter, Elephants, Ants and Superpower: Nigeria's Relations with China (South African Institute of International Affairs, China in Africa Project, Occasional Paper No. 42, Sept. 2009).
[185] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 7ff.
[186] *See* JAMES C. BAKER, *supra* Ch. 2 note 129, at 13ff; Ghassan Ossman, *Legal and Institutional Aspects of the MIGA*, 11 J. INT.L BANKING LAW 359, 369ff (1996).
[187] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 89.
[188] M. SORNARAJAH, *supra* Ch. 1 note 70, at 406.
[189] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 89.

on Principles of International Law Concerning Friendly Relations and Cooperation Among States stipulates that 'each state has the right freely to choose and develop its political, social, economic and cultural systems.'[190] The International Court of Justice (ICJ) held that:[191]

> A prohibited intervention must accordingly be one bearing on matters which each State is permitted, by the principle of State sovereignty, to decide freely. One of these is the choice of a political, economic, social and cultural system, and the formulation of foreign policy. Intervention is wrongful when it uses methods of coercion in regard to such choices, which must remain free ones.

Expropriations are but one of three types of takings, often used interchangeably, namely confiscation, expropriation, and nationalization.[192] 'Confiscation' is the capricious taking of property by the rulers of the state for personal gain. 'Expropriation' (or 'compulsory acquisition' as it is termed in the Zimbabwean Constitution) refers to the taking by states for an economic or public purpose whereas 'nationalization' refers to the industry- or economy-wide takings designed to end or diminish foreign investment in the economy or in sectors of the economy.[193] Likewise, nationalizations and expropriations have different economic impacts: Unlike

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[190] G.A. Res. 2625 (XXV), U.N. Doc. A/8082 (Oct. 24, 1970).

[191] *Case Concerning the Military and Paramilitary Activities in and against Nicaragua* (Nicaragua v. United States of America), 1986 I.C.J. 186, ¶ 205. *See* United Nations Covenant on Civil and Political Rights art. 1(2), Dec. 16, 1966, 999 U.N.T.S. 171. [hereinafter CCPR]; United Nations Covenant on Economic, Social and Cultural Rights art. 1(2), Dec. 16, 1966, 993, U.N.T.S. 3 [hereinafter CESCR] (laying down that '[a]ll peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic cooperation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence'). *See also* Organization of African Unity, African Charter on Human and Peoples' Rights arts. 20 and 21, June 27, 1981, 21 I.L.M. 58 (1982) [hereinafter African Charter] (reinforcing article 1(2) of the two UN covenants by providing that '[a]ll peoples shall have...the unquestionable and inalienable right to self-determination. They shall determine their political status and shall pursue their economic and social development according to the policy they have freely chosen').

[192] M. SORNARAJAH, *supra* Ch. 1 note 70, at 364ff; *see also* PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 3.

[193] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), TAKING OF PROPERTY (United Nations 2000); M. SORNARAJAH, *supra* Ch. 1 note 70, at 365.

expropriations, nationalizations can be crippling and devastating for a host country's economy, as was the case for Zimbabwe after the nationalization of White-owned agricultural lands in the early 2000s.[194]

1.2.2. War and political violence

Africa is relatively more prone to conflict and violence than any other continent. The security situation of host countries is relevant to the assessment of investment risks because insecurity and instability in the host country increase the odds of asset losses for investors. The security situation is all the more relevant to investment risk assessments in Africa because Africa is the region of the world that is the most affected by insecurity and conflicts.[195]

Table 18: Chronology of major conflicts in sub-Saharan Africa

Year	Country	Name of conflict	Type of conflicts
1948-1994	South Africa	Anti-apartheid struggle	Internal
1955-1972	Sudan	First civil war	Internal
1960-1965	DRC	Post-independence war	Internal
1960-1964	Rwanda	Ethnic strife	Internal/ethnic
1961-1974	Angola	Independence war	Independence
1962-1974	Guinea-Bissau	Independence war	Independence
1964-1975	Mozambique	Independence war	Independence
1965-1980	Zimbabwe	Struggle for majority rule	Independence
1966-1990	Namibia	Liberation struggle	Independence

[194] It is estimated that in 2005 the unemployment rate in Zimbabwe was in excess of 80% and in 2008 the gross domestic product (GDP) growth rate in Zimbabwe was -12.6%: Central Intelligence Agency (CIA), *The World Factbook: Zimbabwe*, https://www.cia.gov/library/publications/the-world-factbook/geos/ZI.html (last visited in December 2009). Moreover, the compulsory acquisition of agricultural lands caused a steep decline in agricultural exports and shortages in hard-currency, which in turn caused hyperinflation and chronic shortages in imported fuel, food and consumer goods. *See* Human Rights Watch, Fast Track Land Reform in Zimbabwe, Human Rights Watch, Mar. 2002, vol. 14 no. 1 (A).

[195] MAMOUDOU GAZIBO, INTRODUCTION À LA POLITIQUE AFRICAINE (Les Presses Universitaires de Montréal 2006); DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID), FOREIGN AND COMMONWEALTH OFFICE, LONDON (FCOL) & MINISTRY OF DEFENCE (MOD), THE CAUSES OF CONFLICT IN SUB-SAHARAN AFRICA: FRAMEWORK DOCUMENT 25 (Department for International Development (DFID) 2001).

1966-1969	Nigeria	Biafra civil war	Internal
1966-2006	Chad	Civil war	Internal
1966	Namibia	Caprivi strip secession	Internal/regional
1970-1974	Burundi	Ethnic strife	Internal/ethnic
1974-1978	Ethiopia	Revolution	Internal
1974-1991	Eritrea	War for independence	Internal
1975-1991	Mozambique	War with Renamo	Internal
1976-1977	Ethiopia/Somalia	Ogaden war	Interstate
1979	Tanzania/Uganda	Amin invasion	Interstate
1978-1991	Ethiopia	Civil war	Interstate
1979-1996	Central African Republic	Coups and civil strife	Internal
1980-1986	Uganda	Obote overthrow/civil war	Internal
1982-	Senegal	Casamance	Internal
1983-1985	Zimbabwe	Mateleland unrest	Internal
1983-2005	Sudan	Second civil war	Internal
1984-1989	Somalia	North west secession	Internal
1989-1997	Liberia	Civil war	Internal/regional
1990-1994	Rwanda	Civil war and genocide	Internal/regional
1990-	Sierra Leone	War with RUF	Internal/regional
1991	Somalia	Civil war	Internal
1992-2002	Angola	Second war with UNITA	Internal
1993	Burundi	Civil war	Internal/ethnic/regional
1996-2003	Central African Republic	Army mutinies/coup attempt	Internal
1997-2000	Congo (Brazzaville)	Civil war	Internal
1997	Comoros	Anjouan secession	Internal
1996-1997	DRC	Civil war	Regional
1998-2001	DRC	Second civil war	Regional
1998-1999	Lesotho	Coup attempt/civil strife	Internal
1998-1999	Guinea-Bissau	Civil war	Internal
1998	Ethiopia/Eritrea	Border conflict	Interstate
2000	Guinea	External attacks	Regional
2002	Cô te d'Ivoire	Civil war	Internal/regional

Source: Adapted from M. Gazibo, *Introduction à la politique africaine* (2006) 114; Department for International Development (DFID) *et al.*, *The causes of conflict in Sub-Saharan Africa: Framework document* (2001) 25.

1.2.3. Breach of contract

Host government interference with state-investor contracts is another political risk. Host governments may for one or another reason decide to unilaterally vary the terms of the contracts they have signed with foreign investors. When a host state breaches a clause of an investment contract that keeps the state from taking a foreign investors' property, the breach may amount to expropriation, nationalization or confiscation, as the case may be. If intangible assets, including contract rights, are protected property rights, then they may be expropriated, which in turn may lead to a duty to compensate.[196]

These breaches may occur where a government wishes to review and rescind contracts that an illegitimate previous government entered into, where it is economically efficient[197] or necessary to preserve economic equilibrium,[198] where the contracts are onerous, where they have been concluded in violation of applicable laws or as a result of corruption. In the DRC, the government struck more than 50 onerous deals with foreign investors during the 2003-2006 transition. After pressures from civil society and international non-governmental organizations (NGOs), the government that won the 2006 democratic elections started a review of these mining deals. The review established that, of the 57 contracts and 6 agreements reviewed, none were viable, 40 required re-negotiation, while the remainder had to be cancelled. It is very likely that, if the political opposition wins the elections in the DRC, the new government will cancel[199] or renegotiate the terms of the R4I contract that the previous government entered into with China in 2008.

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[196] August Reinisch, *Expropriation, in* THE OXFORD HANDBOOK OF INTERNATIONAL INVESTMENT LAW 405, 417 (Peter Muchlinski *et al.* eds., 2008).

[197] *Gioacchino v. American Family Mutual Insurance Company*, 64 P.3d 230 (Colo. 2003) (holding that '[t]here are…occasions where the breach of a contract is thought to be economically efficient and socially beneficial. The theory of the 'efficient breach' posits that the purpose of contract law is not to discourage all breaches. To the contrary, certain breaches, such as those where the breaching party's gains exceed the injured party's losses are thought to be desirable').

[198] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 77 (stating that a renegotiation can serve to preserve 'economic equilibrium').

[199] Interview with Jean Paul Kimbulu Kandolo, Chief Technical Advisor in Human Rights and Governance at the United Nations Development Programme (UNDP) in Togo (Jan. 23, 2010).

If a foreign investor signs an investment contract with an unrepresentative government, an incoming democratic government that replaced the unrepresentative one may wish to question the legitimacy of the unrepresentative government and the contract that it signed.[200] In the 1980s during South Africa's occupation of Namibia, the UN Council on Namibia prohibited all transactions in Namibia's natural resources, including uranium contracts, with the regime administering Namibia and controlled by South Africa.[201] If, in addition, the terms of the contracts are unequivocally disadvantageous to the host state, the incoming host government would be more than justified in seeking to rescind the contract.

The problem of legitimacy posed by unrepresentative governments and the investment contracts that they signed is more severe in the case of military juntas. Sornarajah argues that in the extractive industries the case for the invalidity of investment contracts is greater because an unrepresentative government cannot act on behalf of a people in whom sovereignty over natural resources vest in terms of international law.[202] Inevitably, similar questions have surfaced concerning the resource-and-infrastructure (R&I) investment contract that the privately-owned Hong-Kong registered China International Fund (CIF) has signed with the military junta in resource rich Guinea in 2009.[203]

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[200] M. SORNARAJAH, *supra* Ch. 1 note 70, at 75-76.

[201] Caleb M. Pilgrim, *Some Legal Aspects of Trade in Natural Resources in Namibia*, 61 B.Y.I.L. 248, 266-278 (1990).

[202] M. SORNARAJAH, *supra* Ch. 1 note 70, at 76.

[203] Shai Oster, *China's Fund's $7 Billion Deal with Guinea Draws Scrutiny,* WALL ST. J., Nov. 2, 2009, at http://online.wsj.com/article/SB125711859736121663.html; *Guinea and China 'Agree Big Deal',* BBC AFRICA, Oct. 13, 2009, at http://news.bbc.co.uk/2/hi/8304418.stm; Tom Burgis, *China Seeks Big Stake in Nigerian Oil*, FIN. TIMES (U.K.), Sept. 28, 2009, http://www.ft.com/cms/s/0/9d714f96-ac60-11de-a754-00144feabdc0.html.

1.2.4. Currency restrictions

A fourth type of political risk is restrictions imposed on transfers, the conversion or exchange of currency. Local currency regulations may partially or entirely restrict the transfer, conversion, repatriation, or exchange of funds. For example, the host state may license banks and brokers to handle foreign exchange, thereby limiting the availability of foreign exchange for commercial transactions – a move that has engendered a great deal of corruption in LDCs.[204] However, the risk of currency restrictions is lower in the case of natural resources and commodities, whose output is sold in the export market, thereby yielding hard currency directly.[205]

On closer analysis, currency restrictions amount to regulatory takings, thus expropriations. Yet some currency restrictions do not constitute regulatory takings. Exchange controls, for example, apply to the whole economy uniformly and cannot be regarded as expropriation notwithstanding the fact that it affects a foreign investor's property rights.[206] It seems now accepted that a country can impose currency restrictions when justified, though FDI law curtails the ability of poor countries to adopt such regulations. In *CMS Gas Transmission Co. v. Argentina,*[207] an ICSID Tribunal held that states should draw a line between 'measures of general economic nature, particularly in the context of the economic and financial emergency and measures specifically directed to the investment's operation.' Indeed, exchange controls would be justified if and when deployed during an economic crisis to stem the flight of capital from the host state.

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[204] *See* JAMES C. BAKER, *supra* Ch. 2 note 129, at 13.
[205] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 15.
[206] M. SORNARAJAH, *supra* Ch. 1 note 70, at 406.
[207] (2003) ICSID ARB/01/8, ¶ 25.

1.3. Protective devices

Foreign investment law and R4I contracts hold an arsenal of contractual devices to shield foreign investors from political risks and other types of risks that they face in host countries. There are investment-specific and general contractual devices to shield foreign investors from risks. The general devices endeavor to specify the parties' obligations or investment incentives in each possible state of the world and the sharing of risks, gains and losses in each state of the world. Each state of the world can be defined both in quantitative terms by the cost and value of performance, and in qualitative terms by the factors that produced that cost and value.[208] Terms on price, quantity and remedy are quantitative whereas terms on the causes of fluctuations in the cost and value of performance (e.g. *force majeure* clauses, common law doctrines of excuse) are qualitative means of partitioning each state of the world.[209]

Investment-specific devices protect foreign investors from political risks by internationalizing investment contracts. These devices are stabilization, choice-of-law clauses, arbitration, damages, waiver of sovereign immunity, waiver of local remedies exhaustion requirement, currency conversion, repatriation, interest rates, *force majeure* clauses, state interest in project, and state-as-party clauses. Internationalization (achieved chiefly through stabilization, choice-of-law and arbitration clauses) requires investor-state contracts to go through a process that propels them to a higher legal orbit. Out of the sphere of the domestic law of host states, that legal orbit or international system is composed of a complex blend of private international law, general principles of law and international law.

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[208] George G. Triantis, *Unforeseen Contingencies, Risk Allocation in Contracts, in* ENCYCLOPEDIA OF LAW AND ECONOMICS 100, 103 (Boudewijn Bouckaert & Gerrit De Gees 1999).
[209] *Id.*

It is conventional wisdom that in order to strengthen contractual protective devices through internalization, BITs between home states of foreign investors and host states are unavoidable.[210] However, Jason Yackee disputes the conventional view and argues that investment contracts can effectively address political risks, with no need for BITs.[211] Without necessarily endorsing Yackee's argument on the redundancy of BITs, this section moves on to briefly outline the protective devices of investment contracts.

1.3.1. Transparency in R4I contracts

Transparency concerns are recurrent in the literature on the economic exchanges between African countries and China. With very few exceptions, government delegates negotiate, draft and sign R4I contracts in a non-transparent manner despite the enormous natural resources at stake. The lack of transparency should be prominent in discussions on investment risks in relation to R4I contracts and investment contracts in general. Opacity creates the risk of a dramatic waste of resources for both host countries and foreign investors and increases the odds that political risks like expropriations, contract breaches and subsequent changes to the law, materialize going forward.

The word 'transparency' conveys the idea that any social entity should be prepared to subject its activities to (public) scrutiny and consideration.[212] Transparency obligations are held by the host state, the foreign investor and its home state.[213] Yet in defiance of best practices, R4I contracts do not result from the award of contracts through open, public tender, but from direct negotiations with foreign investors. Many an analyst has

[210] *See* M. SORNARAJAH, *supra* Ch. 1 note 70, at 289ff.
[211] Jason Webb Yackee, *supra* Ch. 1 note 54.
[212] UNCTAD, INVESTMENT AGREEMENTS VOL. I, *supra* Ch. 1 note 61, at 281.
[213] *Id.*

raised alarm at the opacity of the negotiation process and the great risk of corruption and favoritism.

These transparency concerns are laudable and understandable; unfortunately most analysts misunderstand the complex nature of R4I contracts and miss the point of an auction, which is what a tender essentially is. First, R4I contracts are not simply the sale of primary commodities; they are also building contracts, which are complex contractual arrangements. Private negotiations are appropriate when a contract is complex, involves the provision of services and the possibility of win-win moves and outcomes.[214] Second, auctions are meant to get for the seller the best value for his or her property *when there are many buyers in the market.* Whereas several foreign investors would line up if a host government in Africa conducted a mining/oil licensing round, it is doubtful whether any foreign investors other than the Chinese state-owned corporations would be willing or able to build national infrastructure in return for minerals/oil. The fact that the number of qualified investors is strictly limited means that the costs of holding an auction would surpass those of direct negotiations with the already known high-value investors.

Another point with transparency is the identification of the items of both governmental and corporate information that are to be made publicly available. Most investment contracts that impose a transparency obligation usually refer to 'laws', 'regulations' and 'procedures'.[215] The advance publication of R4I contracts is exceptional. In most cases, the R4I contract document is deemed confidential and classified under confidentiality and state secret laws.

[214] GUHAN SUBRAMANIAN, NEGOTIAUCTIONS: NEW DEALMAKING STRATEGIES FOR A COMPETITIVE MARKETPLACE 47-49 (W.W. Norton & Company, Inc., 2010).
[215] UNCTAD, INVESTMENT AGREEMENTS VOL. I, *supra* Ch. 1 note 67, at 289.

Advance publication of investment contracts and measures is generally very rare. It is a greater degree of intrusion than some developing countries are willing to accept.[216] Host countries may resent advance publication as undermining their sovereign right to discuss and decide on FDI without the formal intervention by foreign investors and their home countries. Further, in cases where there is a power imbalance between host and home countries, the weaker host country may fear undue influence on its decision-making processes. UNCTAD believes, however, that the absence of any transparency provisions may contribute to undue influence being exercised away from the eyes of other stakeholders and the general public.[217]

Regarding issues of transparency, the partial or complete publication of the terms of the R4I framework contract, after negotiations and signature, can equally serve the purposes of transparency. The DRC published entirely its R4I framework contract with Chinese state-owned corporations.

1.3.2. Takings clauses

Takings clauses protect foreign investors from political risks by restraining the right of host states to take or otherwise interfere with property and property rights. They achieve that purpose by imposing requirements that lawful takings be for a public purpose, non-discriminatory and compensatory of the investors aggrieved by the taking. Like most international investment contracts, R4I contracts contain takings clauses by which African parties undertake to never and in no circumstances

[216] *Id.* at 290.
[217] *Id.* at 291.

whatsoever appropriate, nationalize, nor expropriate, directly or indirectly, the joint venture as well as its property.

With the three types of takings (expropriations, nationalizations and confiscations), the issue of whether the host state must pay compensation is relatively easy. Disputes frequently revolve around the formula for and calculation of compensation. Most important, disputes also involve the question as to whether a measure by host states amount to a 'taking' at all. Certain measures by host states may not result in the actual taking of property, but may still erode the management, use or control, or a significant depreciation in the value, of the assets of a foreign investor.[218] Here the issue is the distinction between measures that trigger takings clauses and their compensation requirement, and measures that interfere with the property rights of foreign investors without falling under the scope of takings clauses.[219]

1.3.3. Stabilization clauses

Stabilization clauses aim at preventing future changes in the legislation of the host state from varying the terms of an investment contract to the detriment of an investing foreign party. The key element of a stabilization clause is the stripping of the host government's right to unilaterally alter a foreign investor's rights by changing its municipal law.[220] Foreign investors stand to lose in any agreement with the host state if the state legislates in a way that varies any contractual right or right to property that is located within its territory.[221] It is therefore in the investor's interest to immunize foreign investment from a range of legislative amendments in given areas, like taxation,

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[218] *Id.* at 235.
[219] *Id.*
[220] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 139.
[221] M. SORNARAJAH, *supra* Ch. 1 note 70, at 281ff.

environmental controls and other regulations as well as to prevent the destruction of the contract itself before the contract expires.[222] International investment law comes off as particularly well suited to protect investor's rights even in circumstances where key constituencies in the host country lobby for legislative amendments or a cancellation of an investment contract. The reason for this observation is that international investment law consists of a set of binding constraints designed to insulate economic policy from majoritarian politics.[223]

However, stabilization clauses cannot fulfill their ideals because constitutional theory prescribes that a sovereign state cannot bind its actions by contract and that it can always change its legislation. They nonetheless raise the legitimate expectations of the parties, which are factored in the assessment of dispute settlement fora when they award compensation.[224] Thus, arbitrators may use violations of stabilization clauses by a host state to award damages, but generally they do not order specific performance of a stabilization clause out of respect for state sovereignty and because of the inability to enforce such an award.[225] If contracts could bind the legislative sovereignty of host states, foreign investors would be promoted to the position of legal persons under international law; and investment contracts would be elevated to the status of a treaty, which is unquestionably not the case.

1.3.4. Choice-of-law clauses

Another technique to protect foreign investment is to incorporate a choice-of-law clause in the investment contract. Whereas stabilization clauses 'freeze' domestic laws

[222] *Id.*
[223] DAVID SCHNEIDERMAN, CONSTITUTIONALIZING ECONOMIC GLOBALIZATION: INVESTMENT RULES AND DEMOCRACY'S PROMISE 3 (Cambridge University Press 2008).
[224] *See Aminoil v. Kuwait* (1982) 21 ILM 976.
[225] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 139-140.

as they were at the time of signing an investment contract, choice-of-law clauses exclude the application of the domestic laws of the host state and subject the contract to some external standards like the 'general principles of law'.[226] The default contract provision is that the law of the host state is the governing law because it is in the majority of cases the place of performance under the contract, though some jurisdictions put limitations on choice-of-law clauses. However, pursuant to the well-established principle of party autonomy in contract law, parties to an investment contract may choose the legal system that will apply to the contract. A party to the contract can therefore choose a legal system other than that of the host state as applicable to the contract. Parties usually select a neutral, commercially sophisticated, well-developed body of law such as English law or New York law.[227] By choosing a foreign legal system a foreign investor can prevent a host state wishing to evade contractual obligations from taking an unfair advantage or counting on the parochialism of domestic courts in the event of a dispute over the terms of the contract.

The weakness of choice-of-law clauses is that they do not have the desired effect of subjecting investment contracts to a system which is higher in the hierarchy than that of the legal system of the host state.[228] A foreign legal system chosen by either or both party will have only a co-equal and not a superior authority. [229] That is the reason why parties sometimes choose the laws of the host state that are not inconsistent with international law,[230] albeit there is no specific branch of international law that applies to

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[226] Sornarajah, *supra* Ch. 1 note 70, at 281.
[227] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 135. Another option is to choose the law of the host state stabilized on the date of the agreement, but only as pertaining to certain issues on which the investment contract is silent or incomplete: *See Maritime International Nominees Establishment v. Government of the Republic of Guinea* (ICSID Case No. ARB/84/4), ad hoc Committee Decision of Dec. 22, 1989, 5 ICSID REV. –FOR. INV. L.J. 95, 111-112 (1990).
[228] M. SORNARAJAH, *supra* Ch. 1 note 70, at 284-285.
[229] *Id.*
[230] For example, *Kaiser Bauxite Company v. Government of Jamaica* (ICSID Case No. ARB/74/3), Arbitral Tribunal Decision on Jurisdiction and Competence of Jul. 5, 1975, 1 ICSID REP. 296, 301

contracts between states and foreign private parties.[231] According to Sornarajah, the difficulty for foreign investors to skirt the law of the host state is the special nature of foreign investment agreements as opposed to contracts in relation to which the law developed the party autonomy doctrine:[232]

> Unlike export transactions, which have a uniform degree of contact with several jurisdictions, the foreign investment contract has contact predominantly with the state…The carrying out of any major industrial project attracts the application of many regulatory controls, such as those relating to planning, environmental protection, customs controls and similar areas of public law. Such laws…will be regarded as mandatory provisions of the law, and it is well accepted in every legal system that mandatory laws cannot be evaded by the mere technique of choosing a foreign law as the law applicable to the contract.

1.3.5. Arbitration

Arbitration is a third contractual device protective of foreign investment. An arbitration clause refers for adjudication all disputes between the host state and the foreign investor to a neutral forum – often an international mechanism like the International Center for the Settlement of Investment Disputes (ICSID). An arbitration clause is preferable to an equivalent provision in a BIT because the arbitration clause can be tailored to the needs of the parties and can, unlike BITs, be used in conjunction with stabilization and choice-of-law clauses.[233]

Typically, a foreign investor will not trust the ability of a developing country and its courts to adjudicate on investor-state dispute impartially and independently. Reference of disputes to the domestic courts of a country other than the host country raises issues

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(1993); *Texaco Overseas Petroleum Company (TOPCO) v. Libyan Arab Republic,* Preliminary Award, 53 I.L.R. 389, 404 (1979).

[231] Derek William Bowett, *supra* Ch. 2 note 101, at 54(state that there is not yet any international law rules of contract law); *Kahler v. Midland Bank* [1950] AC 24 at 56 (holding the municipal law of the host state do not merely 'sustains but, because it sustains, may modify or dissolve the contractual bond'); *Serbian Loans Case,* (1929) PCIJ Series A, No. 20.

[232] M. SORNARAJAH, *supra* Ch. 1 note 70, at 285.

[233] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 134.

of sovereign immunity.[234] Foreign investors often opted for *ad hoc* tribunals and later for ICSID tribunals when negotiations with host states fell through. The World Bank adopted in 1965 the Convention on the Settlement of Investment Disputes Between States and Nationals of Other States (ICSID Convention), which came into force in 1966. The primary purpose of ICSID is to facilitate the conciliation and arbitration of international investment disputes.[235]

1.3.6. Other clauses

Damages – Foreign investors may protect their interests by insisting on the inclusion of a damages clause in the investment contract. The damages clause should lay down that the state has no right to violate contract terms and, in the event of the state expropriating the investor's property or contract rights, the state is obliged to compensate the investor the full value of the investment.[236] To avoid long disputes over the method of determining damages, the damages clause should clearly stipulate the method of valuation of the expropriated property.[237]

Sovereign immunity waiver – Investors may also insert a clause into the contract that stipulates that the host state may not claim sovereign immunity from legal processes when it carries out activities that are commercial in nature. Waivers of sovereign immunity often appear in BITs, though nothing keep parties from adding the waiver in the investment contract. Sovereign immunity waivers are controversial in the eyes of

[234] M. SORNARAJAH, *supra* Ch. 1 note 70, at 286.
[235] International Center for Investment Disputes, About ICSID, http://icsid.worldbank.org/ICSID/FrontServlet?requestType=CasesRH&actionVal=ShowHome&pageName=AboutICSID_Home.
[236] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 144.
[237] *Id.* at 144-145.

several developing countries and their civil society because of the observation that they not only limit national sovereignty but also impede the democratic process.[238]

Waiver of local remedies exhaustion requirement – International arbitration rules oblige investors to exhaust domestic remedies before instituting proceedings at the international level in a neutral forum. To provide for a speedier and more effective process, investors may demand that the host states waive the requirement that investors exhaust domestic remedies before they can proceed to the international forum.

Miscellaneous – Investors and states may negotiate to allow investors to convert revenues into hard currencies and to repatriate profit. In addition, parties may negotiate how interest on arbitral awards is going to be calculated as well as the exceptional circumstances under which parties will be relieved of their contractual duties. Finally, to ensure the effective enforcement of the investment contract, investors may urge the host state itself to execute the contract and to join as a party thereto.[239]

2. The Resource curse

Economic literature on the determinants of economic growth in mineral economies in Africa is replete with discussions on the resource curse, the contradiction between wealth of natural resources and development.[240] The literature sub-divides in three

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[238] DAVID SCHNEIDERMAN, *supra* note 58; RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 9-10.
[239] PAUL E. COMEAUX & N. STEPHAN KINSELLA, *supra* Ch. 1 note 22, at 149.
[240] This part of the chapter draws heavily on Andrew Rosser, The Political Economy of the Resource Curse: A Literature Survey (Institute of Development Studies, Working Paper No. 268 Apr. 2006); and Michael L. Ross, *The Political Economy of the Resource Curse*, 51 WORLD POL. 297-322 (1999). [hereinafter Michael L. Ross, *Review Essay, supra* note].

separate sub-literatures:[241] On the relationship between natural resources and political regimes, on the relationship between natural resources and economic performance, and the relationship between natural resources and civil war. This is to say that the resource curse negatively impact political systems, the economy and social stability.

The overall tendency in legal scholarship has been to posit the veracity of the resource curse.[242] Yet empirical research on the resource curse theory is not conclusive because the relationship between resources and their effects on government, the economy and stability, is mediated by too many circumstantial variables for any causal relationship to be inferred. For that reason, this dissertation handles the resource curse theory in a unique, unusual way: It does not endorse the theory as a framework *predictive* of poor governance, economic performance and social relations; rather, it utilizes it as a framework *indicative* of the risks that foreign investors may face in most resource rich countries in Africa.

2.1. The curse on democracy

Several studies have advanced arguments and evidence to the effect that the 'unearned' revenues from natural resource exploitation results in lower democracy. Proponents of those arguments would claim that R4I contracts contribute to lower democracy to the extent that they provide rents to host governments in the form of dividends, royalties and fiscal revenues from natural resources exploitation. Leonard Wantchekon (1999) found that a one percent increase in resource dependence, measured by the ratio of primary exports to GDP, increases the probability of authoritarianism by about eight

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[241] Andrew Rosser, *supra* note 75, at 8.
[242] *See* for instance, Emeka Duruigbo, *The Global Energy Challenge and Nigeria's Emergence as a Major Gas Power: Promise, Peril and Paradox of Plenty?,* 21 GEO. INT'L ENVTL. L. REV. 395 (2009); Patrick J. Keenan, *supra* Ch. 1 note 31.

percent.[243] Wantchekon came to that conclusion after examining evidence from 141 countries between 1950 and 1990. He said that the lack of transparency and the lack of rules in the rent distribution process engender authoritarian governments in resource rich economies. After analyzing evidence from 113 states between 1971 and 1997, Michael Ross (2001) added that the states that relied on oil or mineral exports tended to become less democratic.[244] One-third of the world's resource-dependent economies are in Africa.[245]

Arguments on the causal relationship between natural resources and low levels of democracy[246] belong to any one of four schools of thoughts. The first school is state-centric and argues that governments in resource rich countries increase public spending and decrease taxes in order to dilute pressures for the democratic opening of governments.[247] The second school of thoughts contends that natural resources undermine democracy by enabling governments to spend more on internal security.[248] The third school connects political regimes and civil wars. The argument is that natural resources abundance fixes governments on power, causing opposition groups to seek executive power by any means, even extra-constitutional means.[249] The case of the fourth school is that natural resources wealth blocks democracy by barring the social

[243] Leonard Wantchekon, Why Do Resource Dependent Countries Have Authoritarian Governments? (Leitner Program Working Papers, 1999).
[244] Michael Ross, *Does Oil Hinder Democracy?*, 53 WORLD POL. 297-322 (2001).
[245] Harry G. Broadman, *supra* Ch. 3 note 173, at 88.
[246] The very definition of 'democracy' is the subject of numerous debates in political science, but the location of a country within the Freedom House rankings (see Freedom House. *Map of Freedom in the World 2010*, http://www.freedomhouse.org/template.cfm?page=363&year=2010 (last visited Nov. 2, 2010)) may function like an indicator of 'low' levels of 'democracy'.
[247] Nathan Jensen & Leonard Wantchekon, *Resource Wealth and Political Regimes in Africa*, 37 COMP. POL. STUD. 816-899 (2004); Ricky Lam & Leonard Wantchekon, Political Dutch Disease? (New York University Working Paper, 2003)(showing that resource booms consolidate the power of the governing elite); Andrew Rosser, *supra* note 75, at 20; Hazem Beblawi, *The Rentier State in the Arab World*, *in*, THE RENTIER STATE: VOLUME II (Hazem Beblawi & Giacomo Luciani eds., 1987).
[248] Nathan Jensen & Leonard Wantchekon, *supra* note 82; Michael Ross, *supra* note 75.
[249] Nathan Jensen & Leonard Wantchekon, *supra* note 82, at 822.

and cultural changes underpinning democracy such as higher educational levels.[250] Michael Herb has been a critic of the fourth school of thought. Using cross-regional dataset, he finds no consistent support for the proposition that rentierism has a net negative effect on democracy.[251]

2.2. The curse on the economy

The resource curse theory also holds that the abundance of natural resources impairs economic performance. Development economics orthodoxy in the 1950s had it that natural resource wealth would benefit developing countries. Developing countries were believed to suffer from imbalances in the factors of production: Even though most had labor surpluses, they fell short of investable capital.[252] The general prognosis was therefore that countries richly endowed with natural resources would most easily resolve capital shortages thanks to their ability to export raw materials and their attractiveness to foreign investors.[253]

The myriad perspectives on the causal connection between natural resources and economic performance stress different aspects of the connection. Though economic perspectives abound, nowadays studies have started to question the validity and reliability of economic explanations.[254] As a result, most recent studies on the

[250] Andrew Rosser, *supra* note 75, at 20.
[251] Michael Herb, *No Representation Without Taxation? Rents, Development and Democracy,* 37 COMP. POL. 3, 297-316 (2005). *See* also MICHAEL HERB, ALL IN THE FAMILY: ABSOLUTISM, REVOLUTION, AND DEMOCRACY IN THE MIDDLE EASTERN MONARCHIES (State University of New York Press 1999)(rejecting the resource curse theory and arguing – based on an analysis of 8 Arab countries – that the Arab monarchies continue to be stable numerous members of the royal family are given important positions in government); John Clark, *Petro-Politics in Congo,* 8 J. DEMOCRACY, Jul. 1997, 62-76 (concluding that African states with economies based on commodity production have a better-than-average chance of achieving democratic transition and consolidation).
[252] Michael L. Ross, *Review Essay, supra* note 75, at 300.
[253] *Id.*
[254] Andrew Rosser, *supra* note 75, at 14.

relationship between natural resource wealth and economic performance have incorporated insights from political science.[255]

2.2.1. Economic explanations

Subsequent economic research digged out a host of objections to the theoretical orthodoxy in development economics, with evidence suggesting that resource rents adversely affected terms of trade, GDP growth rates, commodities market volatility, and linkages of the extractive industries to the rest of the economy.

a) Terms of trade

Some economists maintain that exports of primary commodities is bad for the terms of trade. In international trade and economics, 'terms of trade' are the relative prices of a country's exports to imports at any one time and which are set by the value of that country's currency (i.e. exchange rate). In plain English, 'terms of trade' means how much one country imports per export. An appreciating exchange rate makes exports more expensive and less competitive in world markets, and, conversely, a depreciating exchange rate makes imports more expensive.[256]

The Prebisch-Singer thesis[257] submits that the net barter terms of trade between raw materials and manufactures slide along a long-term downward trend. Stated differently, the thesis claims that, unless global economic patterns change, the distribution of gains from trade between commodity-dependent countries and those exporting mainly

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[255] *Id.*

[256] MARGARET ALLEN, THE TIMES GUIDE TO INTERNATIONAL FINANCE: HOW THE WORLD MONEY SYSTEM WORKS 117 (HarperCollins Publishers 1991).

[257] *See* Hans W. Singer, *The Distribution of Gains Between Investing and Borrowing Countries*, 40 AM. ECON. REV., 473-485 (1950); RAUL PREBISCH, THE ECONOMIC DEVELOPMENT OF LATIN AMERICA AND ITS PRINCIPAL PROBLEM (United Nations 1950).

manufactures will be unequal. Many an economist has found that the terms of trade for primary commodities has dropped since the early 20th century (the 'secular deterioration' hypothesis) and that the rates of the decline of terms of trade ranges from 0.1 to 0.3 percent.[258] Since the beginning of the 1980s, terms of trade for primary commodities decreased as the volume of commodity exports increased. The spike in the volume of commodity exports was fuelled by the debt crisis, structural adjustment programs, the fall of centrally planned economies in eastern Europe and the former Union of Soviet Socialist Republics (USSR) after 1989, and the 1997-98 Asian financial crisis.[259]

Fortunately, since the dawn of the 21th century, the terms of trade between some countries in Africa and China have improved. These developments contradict predictions that exports of primary commodities negatively impact the terms of trade.

b) GDP growth rate

The resource curse theory says that natural resources wealth reduces the rate of economic growth. David Wheeler (1984) found that during the 1970s the countries in sub-Saharan Africa that were rich in natural resources experienced lower economic growth rates, but he concluded that this economic performance may well be due less to bad management than to adverse circumstances.[260] Eric Neumayer (2004) deducted

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[258] David Sapsford & V.N. Balsubramanyam, *The Long-Run Behavior of the Relative Price of Primary Commodities: Statistical Evidence and Policy Implications,* 22 WORLD DEV. 1737-1745 (1994); Michael Bleaney & David Greenaway, Long-Run Trends in the Relative Price of Primary Commodities and in the Terms of Trade of Developing Countries, 349-363 (45 Oxford Economic Papers 1993); Hans Singer & Jerker Edström, *The Impact of Trends and Volatility in Terms of Trade on GNP Growth, in* ECONOMIC CRISIS IN DEVELOPING COUNTRIES: NEW PERSPECTIVES ON COMMODITIES, TRADE, AND FINANCE (Machiko Nissanke & Adrian Hewitt eds. 1993); Andrew Powell, *Commodity and Developing Country Terms of Trade: What Does the Long Rung Show?,* 101 ECON. J. 1485-1496 (1991).

[259] Michael L. Ross, *Review Essay, supra* note 75, at 301.

[260] David Wheeler, *Sources of Stagnation in Sub-Saharan Africa,* 12 WORLD DEV. 1-23 (1984). *See* also Thorvaldur Gylfason *et al., A Mixed Blessing: Natural Resources and Economic Growth,* 3 MACROECONOMIC DYNAMICS 204-225 (1999); Carlos Leite & Jens Weidmann, Does Mother Nature

depreciation from GDP to arrive at 'genuine income' and use genuine income to test the resource curse.[261] He found that the test results supported the curse, but noted that evidence also suggested that the curse is partly due to over-consumption.[262]

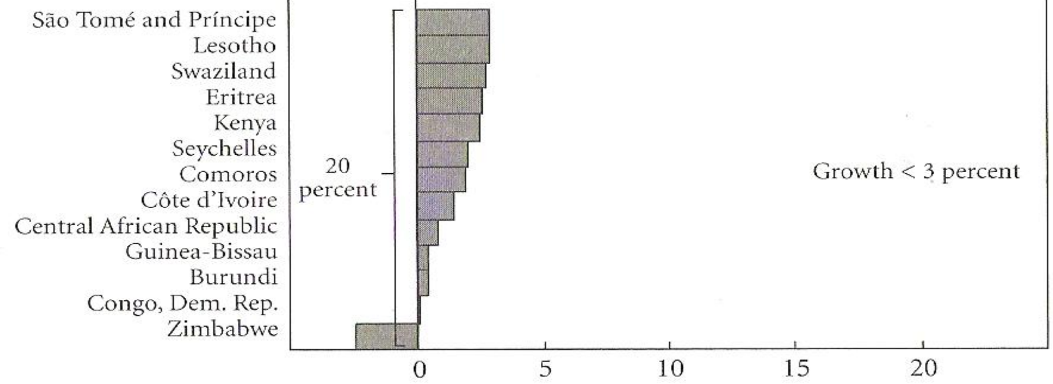
With the exception of Côte d'Ivoire, CAR, the DRC, and Zimbabwe, however, the actual economic growth rates of resource rich African countries over the past decade irrefutably belie theories that natural resource wealth is ominous for GDP growth rates (see Figure 10 below).

Figure 10: Economic growth rate in Africa 1996-2005

Corrupt? Natural Resources, Corruption, and Economic Growth (IMF Working Paper No. 85, 1999)(illustrating, using a simple growth model, the interrelationship between natural resources and economic growth, and showing that the growth effects of natural resource discoveries); ALAN GELB & ASSOCIATES, OIL WINDFALLS: BLESSING OR CURSE?(The World Bank 1988)(showing that resource rich countries have dissipated much of the potential benefit of oil windfalls, leading to negative growth in hard mineral economies).

[261] Eric Neumayer, *Does the 'Resource Curse' Hold for Growth in Genuine Income as Well?* 32 WORLD DEV. 1627-1640 (2004).

[262] *Id*.



Source: H. Broadman, *Africa's Silk Road* (2007).

c) Commodities market volatility

International commodity markets are generally known to be inherently unstable; and instability within those markets could negatively reverberate as far away as the domestic economies of resource rich nations in Africa.[263] This instability of international commodity markets leads to the instability of government revenues, foreign exchange reserves and creates risks for foreign investors. Yet the jury is still out as to whether the exceptional instability of export earnings is harmful and helpful to commodity-dependent economies. A stable of economists found that export earning instability can either be harmful to economic growth or harmless.[264] Jere Behrman (1984) found no evidence supporting claims that instabilities in international commodity markets have a deleterious impact on the economy of resource rich countries.[265] Like David Dawe (1996) and Behrman stated,[266] export instability claims depend on the method of measuring export instability, which often distorts conclusions on the effect of export instability. Dawe concludes that export instability is positively

[263] *See* Gobind Nankani, *Development Problems of Mineral Exporting Countries*, (The World Bank, Staff Working Paper No. 354, 1979); Jonathan Levin, The Export Economies: Their Pattern of Development in Historical Perspective (Harvard University Press 1960); Ragnar Nurske, *Trade Fluctuations and Buffer Policies of Low-Income Countries*, 11 Kiklos 141-144 (1958).
[264] Cristián Moran, *Export Fluctuations and Economic Growth*, J. Dev. Econ. (1983); Gerard Tan, *Export Instability, Export Growth and GDP Growth*, 12 J. Dev. Econ. 219-227 (1983).
[265] Jere R. Behrman, *Commodity Price Instability and Economic Goal Attainment in Developing Countries*, 15 World Dev. 559-573 (1987).
[266] *See* David Dawe, *A New Look at the Effects of Export Instability on Investment and Growth*, 24 World Dev. 1905-1914 (1996); Jere R. Behrman, *supra* note 100.

associated with investment, but negatively associated with growth in several resource rich countries from the early 1970s to the mid 1990s.

Yet some economists believe that export earning instability is beneficial to mineral economies. Studies have shown consistently that uncertainty about export earnings of resource rich countries compels them to buffer themselves against future exogenous shocks and produces higher economic growth[267] and unusually high levels of private investment.[268] As Ghosh & Ostry (1994) found, developing countries have responded to increases in export instability by building up precautionary savings balances.[269]

d) Forward and backward linkages

Economic analyses have also put forth arguments that resource rents do not spread to other sectors of the economy. For Albert Hirschman (1958), one of the major problems with the exploitation of natural resources is that it is an 'enclave': Multinational corporations exploit natural resources and repatriate profits and do not invest them into the local economy.[270] This situation occluded development by confining opportunities to develop backward and forward linkages between mineral extraction and other sectors of the host economy.[271] These economic linkages arguments lost much credibility in the 1970s as developing nations took dominant control of mineral extraction, restricted the repatriation of profits and nationalized major hard-rock and petroleum firms. Some strands of the dependency theory claim that those measures

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[267] ODIN KNUDSEN & ANDREW PARNES, TRADE INSTABILITY AND ECONOMIC DEVELOPMENT: AN EMPIRICAL STUDY (Lexington Books 1975).
[268] Michael L. Ross, *Review Essay*, *supra* note 75, at 304.
[269] Atish R. Ghosh & Jonathan Ostry, Export Instability and the External Balance in Developing Countries (IMF Working Paper No. 94/8, 1994).
[270] ALBERT HIRSCHMAN, THE STRATEGY OF ECONOMIC DEVELOPMENT (Yale University Press 1958); Andrew Rosser, *supra* note 75, at 14.
[271] *Id.*

would solve the problem of economic linkages.[272] However, notwithstanding currency restrictions, national control of extractive industries and other measures in the same line, linkages of resource rents to the rest of the economic are still to materialize. Michael Ross (1999) speculates that the problem may be due to export diversification constraints or the lack of political will to foster linkages, even when states have the capacity to do so.[273]

R4I investment contracts are particularly suited to diversify the economy as they build infrastructure in other sectors. This feature of R4I contracts is visible in the Angola-China and the DRC-China R4I contracts. In the Angolan example, the Angolan and Chinese parties invested through a R4I contract hundreds of millions in various sectors, including health, education, energy, water, fisheries, agriculture, transport, communication, and public works.

e) The Dutch disease

Though the 'Dutch disease' is loosely associated with the resource curse, the true meaning of the concept is narrower. Coined in the 1980s after the discovery of the large North Sea natural gas field in the Netherlands in 1959, the 'Dutch disease' refers to the deindustrialization of a country's economy that ensues from a resource boom, whose mechanism can be described as follows.[274] The discovery of natural resources raises the real exchange rate of the country as its exports sharply increase, thereby rendering its manufactured products less competitive than those from other countries. As a consequence, capital and labor drift towards the extractive sector away from other

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[272] Michael L. Ross, *Review Essay, supra* note 75, at 305.
[273] *Id.* at 305.
[274] For studies and analyses on natural resource discoveries accused of causing the Dutch Disease, *see* J. PETER NEARY & SWEDER VAN WIJNBERGEN EDS., NATURAL RESOURCES AND THE MACROECONOMY (MIT Press 1986).

tradable sectors, primarily manufacturing and agriculture, increasing in the process production costs in those sectors. At the same time the Dutch disease hypothesis states that commodity booms lead to wealth effects and to an appreciation of real exchange rates that squeeze other tradable sectors,[275] a wealth of evidence shows that resource booms do not harm most mineral economies but that they often hurt manufacturing sectors. [276]

Other studies on the link between natural resources wealth and economic performance went beyond emphases on terms of trade, rates of economic growth, commodities markets, and linkages to the rest of the economy. These studies found that, compared to non-mineral economies, resource rich countries do badly in terms of inflation, corruption, [277] savings rates, [278] external indebtedness, export diversification, employment, wage dualism, and agricultural growth. Wood and Berge (1997) found that whether a country exports mainly manufactured products or mainly primary products is a function of the skills of its labor force, relative to its natural resource endowment.[279] Michael Ross (2003) found that, after controlling for initial income, a state's dependence on mineral exports in 1970 is robustly associated with poverty and low levels of human development for the poor in the late 1990s. [280] After making

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[275] Michael Bruno & Jeffrey Sachs, *Energy and Resource Allocation: A Dynamic Model of the 'Dutch Disease,'* 51 REV. ECON. STUD. 845-859 (1982); W. Max Corden & Peter Neary, *Booming Sector and De-Industrialization in a Small Open Economy*, 92 THE ECONOMY J. 825-848 (1982).

[276] Nancy C. Benjamin *et al., The 'Dutch Disease' in a Developing Country: Oil Reserves in Cameroon,* 30 J. DEV. ECON. 71-92 (1989)(showing through a simulation that the Dutch disease would harm agriculture, but would benefit most some of the manufacturing sectors in Cameroon).

[277] Carlos Leite & Jens Weidmann, *supra* note 95. *See* Harry G. Broadman, *supra* Ch. 3 note 173, at 88-89 (stating that the dependence of African countries on natural resource rent creates opportunities for corruption).

[278] Giles Atkinson & Kirk Hamilton, *Savings, Growth and the Resource Curse Hypothesis*, 31 WORLD DEV. 1793-1807 (2003).

[279] Adrian Wood & Kersti Berge, *Exporting Manufactures: Human Resources, Natural Resources and Trade Policy*, 34 J. DEV. STUD. 35-59 (1997).

[280] Michael Ross, How Does Mineral Wealth Affect the Poor?, Apr. 4, 2003, http://www.sscnet.ucla.edu/polisci/faculty/ross/minpoor.pdf (last visited Nov. 24, 2009).

headway in reducing its dependence on raw materials in the late 1980s, Africa's efforts in that regard has since stalled.[281]

2.2.2. Political explanations

Political explanations postulate that the reason why natural resource abundance causes poor economic performance is directly related to the developmental capacity of the state as an institution. These explanations are part of general efforts to excogitate a political economy of development that accounts for the political incentives that generate the suboptimal economic performance of some resource rich states.[282] They posit resource rents as the independent variable and economic morosity as the dependent variable. James Robinson and others (2002) say that countries with strong political institutions benefit from resource booms whereas those with weak political institutions suffer from a resource curse.[283] The difference is that states with strong institutions are capable of creating the capacity to, *inter alia*, absorb resource rents.

The necessary implication from such observations is clearly that state-building is indispensable for countries in Africa to turn a resource boom into a resource blessing. A study by Cameron Thies (2010) bolsters that implication as it positively tests the claim that natural resources affect state fiscal capacity and that increased fiscal capacity deters the onset of state failure.[284] Inversely, when public revenues decline, the benefits of predation on natural resources increased, with state failure a logical and often a real

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[281] Harry G. Broadman, *supra* Ch. 3 note 173, at 92.
[282] *See* James A. Robinson *et al.*, The Political Foundations of the Resource Curse (Centre for Economic Policy Research, Discussion Paper Series No. 3422, 2002)(arguing that the political incentives that resource endowments create are key to understanding whether they are a blessing or a curse).
[283] *Id.*
[284] Cameron G. Thies, *State Fiscal Capacity and State Failure in Sub-Saharan Africa, in* FAILED AND FAILING STATES: THE CHALLENGES TO AFRICAN RECONSTRUCTION 109 (Muna Ndulo & Margaret Grieco eds., 2010).

world result in Africa.[285] Viewed from that angle, therefore, R4I contracts avoid the onset of state failure insofar as R4I contracts increase the fiscal capacity of the state.

The notion of the 'rentier state', pioneered by the economist Hussein Mahdavi, [286] encapsulates most political explanations. The rentier state is a state that derives rent[287] – regular and substantial amounts of unearned income – from various sources related to extractive activities, including taxes on the exportation of natural resources, mining royalties, corporate income taxes, etc. Resource rents may substitute for taxes, which create pressures for accountability,[288] or may soften the necessity to levy taxes and the incentive of the rentier state to be accountable vis-à-vis its citizens. The rentier state neglects to develop extractive industries, resulting in the state lacking information needed to formulate appropriate development strategies.[289] As Hootan Shambayati (1994) demonstrated, rentierism enhances state autonomy and by eliminating economically motivated pressure groups and by making a segment of the bourgeoisie dependent on the state.[290] Resource rents also make governments in resource rich countries risk averse, preferring to maintain the status quo and sacrifice efficient development policies that may meet strong opposition groups in society.

Because rentier states possess vast reserves of 'unearned' income to spend, they tend to develop greater capacity in distributive functions (such as social welfare, education, and health) and production functions than in functions regulating and supervising the

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[285] *Id.*
[286] Hussein Mahdavi, *The Patterns and Problems of Economic Development in Rentier States*, *in* STUDIES IN ECONOMIC HISTORY OF THE MIDDLE EAST (Michael Cook ed., 1970).
[287] This 'rent' includes strategic rents such as development aid.
[288] *See* DEBORAH BRÄUTIGAM *ET AL.* EDS. TAXATION AND STATE-BUILDING IN DEVELOPING COUNTRIES: CAPACITY AND CONSENT (Cambridge University Press 2008).
[289] Michael L. Ross, *Review Essay*, *supra* note 75, at 313.
[290] Hootan Shambayati, *The Rentier State, Interest Groups, and the Paradox of Autonomy: State and Business in Turkey and Iran*, 26 COMP. POL. 307 (1994).

economy and domestic taxation.[291] For instance, Kiren Aziz Chaudry (1994) emphasizes the relative weight of political coalitions, institutional structures and policy in determining the outcomes of economic liberalization reforms in resource rich countries.[292] More precisely, Chaudry argues that the nature of the state's involvement in the economy and different patterns of business-government relations ultimately determined the outcomes of economic reform in Iraq and Saudi Arabia.[293] Dirk Vandewalle (1998) shows how, as a result of Libya's failure to develop strong state institutions, substantial oil revenues did little to finance the modernization and building of the Libyan state.[294]

Political scientist Terry Karl (1997), who uses the concept of 'petro-state', argues that oil-exporting countries chose common development trajectories and suffered similar disappointing political and economic outcomes.[295] Petro-states share the propensity to engage in the 'political distribution of rents' more than in production, economic growth and private investment.[296] Mick Moore (2004)[297] argues that unearned rents create conditions conducive to bad governance, including autonomy of government from the citizenry, incentives for foreign interventions, coups, failure to the expand the tax collection capacity of the state, and non-transparency in government spending.

Richard Auty (2001) showed that mineral rich countries in the Caspian region are slower reformers than resource poor countries in transition in the same region, even if

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[291] Andrew Rosser, *supra* note 75, at 15-16.
[292] Kiren Aziz Chaudry, *Economic Liberalization and the Lineages of the Rentier State*, 27 COMP. POL. 1-25 (1994).
[293] *Id.*
[294] DIRK VANDEWALLE, LIBYA SINCE INDEPENDENCE: OIL AND STATE-BUILDING (Cornell University Press 1998).
[295] TERRY LYNN KARL. *supra* Ch. 1 note 13.
[296] *Id.* at 16.
[297] Mick Moore, *Revenues, State Formation and the Quality of Governance in Developing Countries*, 25 INT'L POL. SCI. REV. 297-319 (2004).

all the countries in the region have failed to create developmental political states.[298] He however found that corruption and rent-seeking did not vary with natural resource endowment.[299] Auty & Gelb (2001)[300] present evidence showing that resource rents will most probably develop predatory or factional oligarchies rather than developmental political states because (1) resource rents create a high tolerance by the poor majority for unfair asset distribution, creating in turn risks that the state fails to redistribute wealth, (2) resource rich countries are more prone to trade protectionism than to efficient export-oriented policies because of the Dutch disease, (3) the importance of the resource sector means that it can support inefficient inward-looking sectors, and (4) resource rents lead resource rich countries to 'cumulative policy error'.

2.2.3. Rational and behavioralist explanations

Ideas that resource endowments can lead to short-sighted behavior, inefficient policies or 'irrational exuberance'[301] gained currency as early as the 16th century when Jean Bodin said that:[302]

> Livy remarks that the inhabitants of rich and fertile country are normally mean and cowardly, whereas a barren soil makes men sober of necessity, and in consequence careful, vigilant, and industrious.

Rational explanations of resource rents on economic performance assume that mineral resource wealth gives rise to corruption and rent-seeking behavior among the political

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[298] Richard M. Auty, *Transition Reform in the Mineral-Rich Caspian Region Countries*, 27 RESOURCES POL'Y 25-32 (2001).
[299] *Id.*
[300] As quoted by Andrew Rosser, *supra* note 75, at 16.
[301] The phrase 'irrational exuberance' is not an old but a new phrase that was first used by Alan Greenspan, the then-Chairman of the Board of the US Federal Reserve Bank, in a speech made at the American Enterprise Institute on Dec. 5, 1996. The phrase is used in the text to which this footnote refers only to mean the idea – that people endowed with an abundant land sometimes acted irrationally – is dates back to at least the 16th century.
[302] JEAN BODIN, SIX BOOKS OF THE COMMONWEALTH 565, Chapter I Book 5 (M.J. Tooley trans. 1967).

elite of a given mineral rich country. Michael Ross (2001) uses the phrase 'rent-seizing' to describe the process whereby political elites seek to seize resource rents directly or by appropriating to themselves to right to distribute resource rents.[303] When resource rents are forecast to be short-lived, political elites tend to maximize resource rents; when they are forecast to be permanent, elites tend to redistribute resource rents to influence elections.[304] In either case, resource rents compromise positive economic outcomes. Ragnar Torvik (2002) developed a model showing that with rent seeking a greater amount of natural resources increases the number of entrepreneurs seeking rent and reduces the number of entrepreneurs running productive firms.[305] Torvik concludes that:[306]

> …increased productive capacity may decrease or increase welfare, depending on how it increases profits in rent seeking, relative to profits in modern production. Because of demand externalities, the initial response of entrepreneurs is strengthened, and increased productive capacity induces negative or positive multipliers.

Behavioralist explanations, on the other hand, do not assume that political elites are rational self-maximizers but that they suffer from either a myopic sloth or 'irrational exuberance', prompting them to formulate and implement ill-advised policies. Some political scientists have for example explained that natural resource discoveries made political elites irrationally optimistic, wishful in their thinking[307] and wasteful in their spending.[308]

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[303] MICHAEL ROSS, TIMBER BOOMS AND INSTITUTIONAL BREAKDOWN IN SOUTHEAST ASIA (University of Michigan 2001). *See also* WILLIAM ASCHER, WHY GOVERNMENTS WASTE NATURAL RESOURCES: POLICY FAILURES IN DEVELOPING COUNTRIES (John Hopkins University Press 1999).
[304] James A. Robinson *et al.*, *supra* note 117 (showing that resource rents increase resource misallocation in the rest of the economy by raising the value of being in power and by providing political elites with the means to influence electoral outcomes).
[305] Ragnar Torvik, *Natural Resources, Rent Seeking and Welfare,* 67 J. DEV. ECON. 455-470 (2002).
[306] *Id.* at 469.
[307] Lawrence B. Krause, *Social Capability and Long-term Economic Growth, in* SOCIAL CAPABILITY AND LONG-TERM ECONOMIC GROWTH 310-327, 322 (Bon Ho Koo & Dwight H. Perkins eds., 1995).
[308] PRADEEP MITRA, ADJUSTMENT IN OIL-IMPORTING DEVELOPING COUNTRIES: A COMPARATIVE ECONOMIC ANALYSIS 295 (Cambridge University Press 1994).

2.2.4. Societal explanations

Unlike political, rational and behavioralist accounts of the impact of resource abundance on economic performance, societal explanations do not worry so much about political elites as they do about the relative power of various groups and classes in society. A group of scholars claimed that resource rents strengthen well-connected business groups and that the government in those resource rich states designs policies aimed at benefiting those groups.[309] James Mahon (1992) noted that the same events that made Latin America competitive in manufactured exports forced poor citizens to sacrifice so that their country could repay a public debt that financed the purchase of foreign assets by the rich.[310] In Latin America, resource wealth gave rise to the emergence of landed and business elites with vested interests in import-substitution industrialization (ISI) as opposed to the export-oriented industrialization (EOI) practiced in resource poor East Asia, where no such elites exist.[311]

Another group of researchers has defended that natural resource abundance subverts social cohesion by lessening the capacity of states to manage social tensions and external economic shocks.[312] Tensions between social groups flare up as the ownership of or the right to distribute oil, hard minerals and plantation crops is concentrated in the hands of a few well-connected individuals or families (rentier capitalists), making it difficult to reach social consensus on an economic reform agenda.[313] During times of

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[309] Andrew Rosser, *supra* note 75, at 16.

[310] James A. Mahon, *Was Latin America Too Rich to Prosper? Structural and Political Obstacles to Export-Led Industrial Growth*, 28 J. DEV. STUD. 241-263,260 (1992).

[311] *Id.* at 256ff.

[312] *See* Jonathan Isham *et al.*, The Varieties of Rentier Experience: How Natural Resource Export Structures Affect the Political Economy of Economic Growth, 2002, http://are.berkeley.edu/courses/EEP131/fall2007/resourcecurse/Isham.pdf (last visited Dec. 5, 2009).

[313] *Id.* at 17.

economic prosperity these tensions subside but resurface when the state suffers from economic shocks or decline.[314]

2.2.5. Dependency or neo-colonialist explanations

A line of thinking in the scholarship on the resource curse claims that countries rich in natural resources are forced into the capitalist structure of the global economic system. The global capitalist system is one based on unequal exchange where the interests of poor countries are subordinated to those of rich countries. The global capitalist system impairs the ability of resource rich countries to pursue autonomous programs of economic development.[315] For Michael Perelman (2003), for example, the origins of the curse of oil do not lie in the physical properties of petroleum but in the 'social structure of the world:'[316]

> A rich natural resource base makes a poor country, especially a relatively powerless one, an inviting target—both politically and militarily—for dominant nations. In the case of oil, the powerful nations will not risk letting such a valuable resource fall under the control of an independent government, especially one that might pursue policies that do not coincide with the economic interests of the great transnational corporations. So, governments that display excessive independence soon find themselves overthrown, even if their successors will foster an environment of corruption and political instability.

With China's spectacular investments in Africa's oil and mining sectors, some commentators have already started interpreting the failed coups in Equatorial Guinea in 2005[317] and in Guinea in 2009[318] as evidence of the scramble among powerful

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[314] *Id.* at 18.
[315] *See* e.g. Bonnie Campbell, *Revisiting the Reform Process of African Mining Regimes,* 30 CANADIAN J. DEV. STUD. 197-217 (2010) (arguing that the externally driven liberalization process of African mining regimes is externally driven, institutionalizes asymmetrical power relations, erodes the ability of African countries the conditions under which mining activities can take place, and negatively impacts democratic processes, and state legitimacy); Andrew Rosser, *supra* note 75, at 17.
[316] Michael Perelman, *Myths of the Market: Economics and the Environment*, 16 ORG. & ENV'T 168, 199-202 (2003).
[317] Adam Roberts, *Simon Mann's Part in the Modern Scramble for Africa,* TELEGRAPH (U.K.), Nov. 6, 2009, http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/6512241/Simon-Manns-part-in-the-modern-scramble-for-Africa.html. (arguing that former British intelligence agent Simon Mann's

countries for resources in Africa. John B. Foster (2006) says that, although the US military buildup is frequently justified as necessary to counter growing instability in the oil regions of sub-Saharan Africa, American 'grand strategists' are clear that the real issues are oil and China's growing presence in Africa:[319]

> All across Africa today, China is acquiring control of natural resource assets, outbidding Western contractors on major infrastructure projects, and providing soft loans and other incentives to bolster its competitive advantage… Most threatening from the standpoint of U.S. grand strategists is China's $2 billion low-interest loan to Angola in 2004, which has allowed Angola to withstand IMF demands to reshape its economy and society along neoliberal lines… Like the old scramble for Africa this new one is a struggle among great powers for resources and plunder—not for the development of Africa or the welfare of its population.

2.3. The curse on security

A third incidence of the resource curse is armed conflicts. The resource curse theory holds that certain types[320] of natural resources lead to civil wars and influence their duration and the number of war-related human casualties. Natural resources can be categorized according to the type of civil war that they cause.

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involvement in the failed coup against the President of oil-rich Equatorial Guinea is only a tiny part of the present-day race for Africa's mineral wealth).

[318] In December 2009, after the failed attempt to assassinate the President of Guinea, Dadis Moussa Camara, the military junta ruling Guinea accused French intelligence services and French Foreign Minister Bernard Kouchner of plotting to overthrow President Camara and the junta: *Bernard Kouchner Accused Over Camara Shooting,* BBC NEWS (UK), Dec. 10, 2009, http://news.bbc.co.uk/2/hi/africa/8405488.stm. Although it occurred shortly after Camara's troops killed more than 150 people at a political rally at a stadium in Conakry on Sept. 28, 2009, the failed coup did also take place shortly after the Guinean government announced a 7 billion US dollar resource-for-infrastructure contract with a Hong-Kong registered company.

[319] John Bellamy Foster, *A Warning to Africa: The New U.S. Imperial Grand Strategy,* 58 MONTHLY REV. 2 (2006)(quoting in part a publication by the US Council on Foreign Relations, *More than Humanitarianism*).

[320] Quoting Richard Auty, Andrew Rosser (*supra* note 75, at 18) wrote that 'point source resources are more likely to produce conflict than diffuse resources because they concentrate rents on the government and thereby encourage military opposition from disaffected groups; and lootable resources are more likely to produce conflict than non-lootable resources because they can be relatively easily captured by secessionist rebels or warlords, especially if they are located near porous borders'.

Table 19: The causal relationship with resource types and war types

Type of Resources	**Example**	**Type of war**	**Explanation**
Point source resources close to the capital	oil (Angola, Chad, Congo), coffee (Rwanda)	state control/ coup d'Etat	Point source resources can be easily monopolized by a single group because of their concentration in particular locations. Resources distant from the capital are easier for rebels to monopolize than those proximate to the capital.
Point source resources distant from the capital	oil (Sudan, Nigeria/ Biafra), copper (DRC)	secession	
Diffuse resources close to the capital	cropland (Senegal-Mauritania)	rebellion/ rioting	Diffuse resources cannot be easily monopolized by a single group because of their dispersion over a broad geographical area. Resources distant from the capital are easier for Rebels to monopolize than those proximate to the capital. Distant diffuse resource are easily accessible, marketable and sufficiently valuable.
Diffuse resources distant from the capital	diamonds (Angola, DRC, Liberia, Sierra Leone), camels and bananas (Somalia)	war-lordism	
Lootable resources	alluvial diamonds and narcotics	separatist	Extraction of lootable resources involves highly skilled labor and benefits skilled workers, resource firms and the government.
Unlootable resources	oil, natural gas, and deep-shaft minerals	non-separatist	Extraction of unlootable resources involves unskilled labor and benefits unskilled workers and local people.

Source: P. Le Billon, *The political ecology of war* (2001) 572ff; M. Ross, *Oil, drugs and diamonds* (2003); A. Rosser, *The political economy of the resource curse* (2006) 19-20.

Since 1990 natural resources have played a central part in triggering, prolonging and financing eight[321] civil wars in Africa.[322] The UN has on several occasions singled out

[321] Angola in 1975-2002 (oil and diamonds), Republic of Congo in 1997 (oil), DRC in 1996-1997 and in 1998-2008? (copper, coltan, diamonds, gold and cobalt), Liberia in 1989-1996 (timber, diamonds, iron, palm oil, cocoa, coffee, marijuana, rubber and gold), Morocco in 1975 until at least 2002 (phosphates and oil), Sierra Leone in 1991-2000 (diamonds), and Sudan since 1983 (oil): *See* Michael Ross, *The Natural Resource Curse: How Wealth Can Make You Poor*, *in* NATURAL RESOURCES AND VIOLENT CONFLICT: OPTIONS AND ACTIONS 18 (Ian Bannon & Paul Collier eds., 2003) [hereinafter Michael Ross, *How Wealth Can Make You Poor*].

mineral resources as a cause of conflicts in Africa. In a report on the causes of conflict in Africa, former UN Secretary-General Kofi Annan stated that control of mineral resources, in countries like Sierra Leone and Angola, are economic motives for the armed conflicts.[323] The UN General Assembly even passed a resolution in which it urges the diamond rich countries and the diamond industry to 'find ways to break the link between conflict diamonds and armed conflict.'[324]

2.3.1. Outbreak

The discourse on resource-conflict causal mechanisms takes place in the larger debates on the causes of civil wars.[325] Two camps have emerged in those debates. The first camp stresses the motives of rebel organizations and posits that grievances resulting from economic inequalities cause wars; the second camp emphasizes the economic motives and opportunities, and suggests that greed (i.e. the rebels' desire to enrich themselves) and opportunities to fund rebel organizations determine the outbreak of civil wars.[326]

In the grievance camp, political scientists like Michael Ross place a particular focus on grievances arising from the exploitation of natural resources: Land expropriation and compensation disputes, corruption,[327] environmental degradation, labor and labor-related issues. The poor management of a large mining sector almost unavoidably results in massive violations of human rights and may touch off armed conflicts. The

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[322] *Id.* at 17.
[323] Secretary-General, *Report of the Secretary-General on the Causes of Conflict and the Promotion of Durable Peace and Sustainable Development in Africa,* ¶ 14, *delivered to the Security Council,* U.N. Doc. S/52/871, A/1998/318 (April 13, 1998).
[324] G.A. Res. 55/56, U.N. Doc. (Jan. 29, 2001) ¶ 2.
[325] Andrew Rosser, *supra* note 75, at 17.
[326] *Id.*
[327] Harry G. Broadman, *supra* Ch. 3 note 173, at 89 (writing that partly as a result of the corruption flowing from the dependence on resource rents, high degrees of income inequality and conflicts characterize Africa).

substantial mining revenues often create vicious cycles of corruption and inefficient governance, which both set the scene for the massive violations of human rights and armed conflicts.[328] The DRC's 1996-2003 civil wars, the worst humanitarian crisis since World War II,[329] were in large part fuelled by the illegal trade in minerals in the eastern provinces of North Kivu and South Kivu. The fact that it claimed the life of over five million people is probably the strongest evidence of the connection between mining and civil strife.

In the greed camp are, among others, economic studies by Collier & Hoeffler, who produced a hefty body of evidence for the proposition that the resource wealth is strongly correlated with civil wars. They defined resource wealth in terms of the ratio of primary exports to GDP and examined 98 countries and 27 civil wars. Collier & Hoeffler's model suggests that what actually happens is that opportunities for controlling primary exports cause civil wars and the grievances that they engender incite diasporas to fund further conflict.[330] They found that resource abundance increased the risk of civil war, usually secessionist wars,[331] and decreased it if exports exceeded a certain threshold level.[332] However, they found that the effect of resource abundance on civil wars was less significant if their earlier export-based measure of wealth was replaced by a rent-based measure.[333]

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[328] Monika Weber-Fahr *et al.*, *supra* Ch. 3 note 254, at 443.
[329] *See* INTERNATIONAL RESCUE COMMITTEE, MORTALITY IN THE DEMOCRATIC REPUBLIC OF CONGO: AN ONGOING CRISIS (International Rescue Committee 2007).
[330] Paul Collier & Anke Hoeffler, Greed and Grievance in Civil War (World Bank Policy Paper No. 2355, 2000).[hereinafter Paul Collier & Anke Hoeffler, Greed and Grievance].
[331] Paul Collier & Anke Hoeffler, *The* Political Economy of Secession 8 (World Bank Research Development Group, 2002) http://users.ox.ac.uk/~ball0144/self-det.pdf. (natural resources are usually geographically concentrated in particular part of a country so that countries that are heavily dependent on natural resource exports are likely to be prone to secessionist movements). *See* Marta Reynal-Querol, *Ethnicity, Political Systems, and Civil Wars,* 46 J. CONFLICT RESOL. (2002)(arguing that natural resource wealth was a significant variable in explaining the incidence of non-ethnic civil wars).
[332] Paul Collier & Anke Hoeffler, Greed and Grievance, *supra* note 159.
[333] Paul Collier & Anke Hoeffler, *Resource Rents, Governance, and Conflict,* 49 J. CONFLICT RESOL. 625-633 (2005).

Beyond greed and grievance hypotheses, researchers have found alternative explanations for the role of natural resource wealth in setting off armed conflicts. In any event, it is more realistic to proceed on the general premise that civil wars often result, if not always, from several causal mechanisms rather than one. It is for that reason that a combination of explanations, rather than one overarching explanation, is more likely to illuminate the debate on the resource-conflict causal link.

Single factor causal theories, such as 'looting' explanations, do not enrich debates on the role of natural resources in armed conflicts. First, the 'looting' explanation states that resource wealth causes wars because rebels can finance their activities by exporting natural resources themselves or by taxing the exporters.[334] Many other contributing factors, like the fragility of social cohesion, could account for those wars rather than the mere opportunities offered to rebels to finance wars through the illegal trade or taxation of natural resources.

A second alternative explanation is that civil wars in resource rich countries are caused by state weakness and not by greed or grievances.[335] In 2008, an African Development Bank report stated that mineral resources did not exactly cause war in the DRC, Liberia and Sierra Leone.[336] It maintains that these three countries actually experienced state failure before suffering resource-fuelled civil wars.[337] Auty (2004) argues that resource

[334] Michael L. Ross, *How Do Natural Resources Influence Civil War? Evidence From 13 Cases*, 41 PEACE RES. 35-68 (2004).[hereinafter Michael L. Ross, *How Do Natural Resource Influence Civil War?*]
[335] For instance, Marilyn Silberfein, *The Geopolitics of Conflict and Diamonds in Sierra Leone,* 9 GEOPOLITICS 213, 217ff (2004)(contending that resource-based conflicts can be linked to the collapse of the state, the emergence of pervasive criminality among state and non-state actors along with the proliferation of small arms).
[336] AFRICAN DEVELOPMENT BANK, AFRICAN DEVELOPMENT REPORT 2008/2009: CONFLICT RESOLUTION, PEACE AND RECONSTRUCTION IN AFRICA (Oxford University Press 2008).
[337] *Id.* 2.

rents create the necessary conditions for civil war by making the state predatory then by causing it to collapse, with war eventually breaking out depending on the type of resources the state possesses.[338] Third, dependency explanations hold that, by increasing the probability that foreign actors will be involved in a rebellion, natural resources increases the risks of civil war.[339]

2.3.2. Prolongation

Some scholars have concluded that natural resource abundance prolongs the duration of civil wars. Natural resource wealth is said to stretch wars by providing rebels with the means to sustain their activities through looting, by making it less likely in a secessionist conflict that governments will adhere to a peace agreement granting a region fiscal autonomy, and by enabling rebels to sell future exploitation rights to minerals in the territory they plan to control[340].[341] Doyle & Sambanis (2006) found that the export of primary commodities is negatively associated with the success of peace building efforts in wars since 1945,[342] which imply that primary commodity exports tend to prolong wars.[343] James Fearon (2004) found that finances from contraband (cocaine, diamonds, and opium) have played a significant part in many of the longest civil wars since 1945.[344]

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[338] Richard M. Auty, *Natural Resources and Civil Strife: A Two-Stage Process*, 9 GEOPOLITICS 29-49 (2004).
[339] Michael L. Ross, *How Do Natural Resource Influence Civil War? supra* note 169.
[340] *Id.* at 57-58.
[341] Andrew Rosser, *supra* note 75, at 19.
[342] MICHAEL W. DOYLE & NICHOLAS SAMBANIS, MAKING WAR AND BUILDING PEACE: UNITED NATIONS PEACE OPERATIONS (Princeton University Press 2006).
[343] Michael L. Ross, *What Do We Know About Natural Resources and Civil Wars,* 41 J. PEACE RES. 337, 341 (2004). [hereinafter Michael L. Ross, *What Do We Know About Natural Resources*].
[344] James D. Fearon, *Why Do Some Civil Wars Last So Much Longer Than Others*,49 J. PEACE RES. 275-301 (2004).

Ballentine & Nitzschke (2003) wrote that the way in which natural resources provide rents to combatants is pertinent to the duration of civil wars.[345] The exploitation of natural resources by rebel groups finances and sustains armed conflicts. Rebel groups prefer to settle in areas producing primary commodities with considerable economic rents.[346] The largest rents derive from the exploitation of natural resources, which is generally for export.[347]

Access to lootable resources (e.g. alluvial diamonds and narcotics) appears to lengthen non-secessionist conflict by benefiting insurgents disproportionately whereas access to unlootable resources (e.g. oil and deep-shaft minerals) lengthen separatist and non-separatist conflicts depending on the strength of the government.[348] Luc Omgba, carried out statistical analysis with data covering a period ranging from the 1970s to the 1990s and found that oil, probably owing to its strategic importance in world markets, prolongs the duration of government in power.[349]

On balance, however, one of the weaknesses of claims that resource rents drag civil wars is that it is not yet clear which physical properties of natural resources are likely to ignite or prolong wars.[350] Furthermore, natural resources are seldom the entire story behind insecurity and armed conflicts, but they make other underlying issues compounding conflicts intractable.[351]

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345 KAREN BALLENTINE & HEIKO NITZSCHKE, BEYOND GREED AND GRIEVANCE: POLICY LESSONS FROM STUDIES IN THE POLITICAL ECONOMY OF ARMED CONFLICT 5 (International Peace Academy, IPA Policy Report 2003).
346 PAUL COLLIER *et al.*, BREAKING THE CONFLICT TRAP: CIVIL WAR AND DEVELOPMENT POLICY 75 (World Bank and Oxford University Press 2003).
347 *Id.*
348 Karen Ballentine & Heiko Nitzschke, *supra* note 180.
349 Luc Désiré Omgba, *On the Duration of Political Power in Africa: The Role of Oil Rents,* 42 COMP. POL. STUD. 416 (2009).
350 Michael L. Ross, *What Do We Know About Natural Resources, supra* note 178, at 349.
351 PAUL COLLIER *et al., supra* note 181, at 63.

2.3.3. Human casualties

There is sufficient empirical evidence proving that civil wars that emerge in environments rich in natural resources tend to result in higher levels of indiscriminate violence and, thereby, higher levels of civilian casualties.[352] Based on empirical research in Uganda, Mozambique and Peru, Jeremy Weinstein (2007) explains that structures of internal control and external governance shape the capacity of rebel organizations to discipline their members and influence the expectations of civilians about their behavior when they seize a town.[353] Weinstein claims that the indiscriminate character of insurgent behavior cause higher aggregate levels of violence as civilian resistance makes it increasingly difficult for economically opportunistic insurgencies to operate.[354]

Table 20: Relationship between resource endowments and rebel violence

Initial endowments **Challenges**	**Economic endowments**
Control: ensuring that combatants follow orders	permit indiscipline to maintain membership but control military strategy from the top
Governance: managing civilians in areas of territorial control	extract resources through coercion
Violence: punishing individuals or groups for acts of defection	employ violence indiscriminately and to a significant degree
Resilience: maintaining rebel membership over time	coercive tactics persist as groups find it difficult to change their membership and alter civilians' expectations.

[352] JEREMY M. WEINSTEIN, INSIDE REBELLION: THE POLITICS OF INSURGENT VIOLENCE 7 (Cambridge University Press 2007).
[353] *Id.* at 10.
[354] *Id.* at 11.

Source: J. Weinstein, *Inside Rebellion* (2007) 12.

The DRC, Liberia and Sierra Leone may serve as examples of Weinstein's argument. The three countries are resource rich countries where the civil wars that afflicted their communities were to a greater or lesser extent resource-based.[355] The humanitarian situation in these countries was depressingly bleak in 2008, with the DRC reeling from the deadliest civil war since World War II;[356] Liberia posting 85 per cent of unemployment rate,[357] the world's second highest in 2008;[358] and Sierra Leone listed as the country with the lowest human development that year.[359]

3. PIRSA

3.1. The heterogeneity of Africa

What waters down the generalizability of theories on the political economy of resource rich countries in Africa is the continent's heterogeneity. It is extremely arduous to talk or theorize about the African continent as if it were a homogenous whole. With 53 states and more than a billion people,[360] the continent – the second largest and second most populous after Asia – is incredibly diverse (see Table below). Africa is highly

[355] UNITED NATIONS DEVELOPMENT PROGRAMME, HUMAN DEVELOPMENT REPORT (2005): INTERNATIONAL COOPERATION AT A CROSSROADS: AID, TRADE, AND SECURITY IN AN UNEQUAL WORLD 166 (United Nations Development Programme 2005).
[356] *See* INTERNATIONAL RESCUE COMMITTEE, *supra* note 164.
[357] Central Intelligence Agency (CIA), *The World Factbook: Liberia (2008)*, https://www.cia.gov/library/publications/the-world-factbook/geos/li.html#Econ (last visited Sept. 17, 2008).
[358] *Iron Ladies of Liberia,* INDEPENDENT LENS, http://www.pbs.org/independentlens/ironladies/economy.html. (last visited Sept. 17, 2008)
[359] United Nations Development Programme, *Human Development Reports (2007/2008)*, http://hdr.undp.org/en/statistics/. (last visited on Sept. 18, 2008).
[360] *Africa Population Tops A Billion*, BBC Africa, Nov. 18, 2009, http://news.bbc.co.uk/2/hi/africa/8366591.stm.

fragmented geographically, with extremely inconvenient and costly transportation networks, accounting for its small role in global commerce and investment.[361]

Table 21: Heterogeneity of sub-Saharan Africa

	GDP growth 1996 -2000	GDP per capita, 2000, in US dollars	Sectors as percentage of GDP				Oil producers	land-locked
			agri-culture	indust-try	manu-facturing	services		
Angola	7.9	799	9	59	4	32	X	
Benin	4.8	324	35	14	9	50		
Botswana	5.7	3,671	2	44	4	43		X
Burkina Faso	4.6	248	31	20	14	49		X
Burundi	1.2	107	49	19	n.a	27		X
Cameroon	4.5	737	43	15	8	40		
Cape Verde	6.5	1,292	7	20	1	73		
Central African Rep.	0.9	225	56	22	n.a	22		X
Chad	7.8	261	59	8	6	29	X	X
Comoros	2.0	378	41	12	4	47		
Dem. Rep. Congo	0.0	88	59	12	5	n.a		X
Republic of Congo	3.5	940	6	56	6	38	X	
Côte d'Ivoire	1.5	574	26	18	15	56		
Equatorial Guinea	20.9	4,101	5	60	n.a	3	X	
Eritrea	2.2	174	14	22	10	55		
Ethiopia	5.5	132	41	9	n.a	39		X
Gabon	1.7	3,860	9	68	5	22	X	
Gambia, the	4.5	327	28	13	5	48		
Ghana	4.7	275	35	25	9	40		
Guinea	3.6	381	24	35	4	37		
Guinea-Bissau	0.6	134	61	12	9	25		
Kenya	2.8	427	13	16	11	52		
Lesotho	2.7	543	16	36	18	38		X
Liberia		130	61	9	8	30		
Madagascar	3.3	229	26	15	13	50		
Malawi	3.2	154	36	14	10	40		X
Mali	5.7	237	33	24	3	35		X
Mauritania	4.9	437	17	27	8	46		
Mauritius	4.9	4,223	5	26	19	56		
Mozambique	8.4	276	23	32	14	36		

[361] Harry G. Broadman, *supra* Ch. 3 note 173, at 88.

Namibia	4.0	2,035	10	23	11	57		
Niger	3.5	155	40	17	7	43		X
Nigeria	4.0	402	26	48	4	24	X	
Rwanda	7.5	250	40	21	10	38		X
São Tome & Principe	3.1	354	17	16	4	67		
Senegal	4.6	461	17	21	13	62		
Seychelles	2.0	6,688	3	28	16	70		
Sierra Leone	1.1	170	n.a	n.a	n.a	n.a		
Somalia		n.a	n.a	n.a	n.a	n.a		
South Africa	3.1	3,346	3	29	18	59		
Sudan, the	6.4	439	28	27	7	39	X	
Swaziland	2.8	1,358	n.a	n.a	n.a	n.a		X
Tanzania	5.4	314	41	15	7	35		
Togo	3.3	244	41	23	9	36		
Uganda	6.1	262	29	19	8	43		X
Zambia	3.6	339	19	33	11	38		X
Zimbabwe	-2.4	457	16	21	13	42		

	# of bor-ders	conflict affected	population (millions)	surface area (thousands of sq. km.)	population density (# of people /sq. km.)	Export diversifi-cation index
Angola	3	X	14.5	1,247	12	1.1
Benin	4		7.1	113	63	2.1
Botswana	2		1.7	582	3	
Burkina Faso	6		12.7	274	46	2.2
Burundi	3	X	7.5	28	269	1.6
Cameroon	6		16.7	475	35	4.4
Cape Verde	0		0.5	4	122	9.2
Central African Rep.	5	X	4.0	623	6	3.4
Chad	5	X	9.1	1,284	7	2.6
Comoros	0		0.6	2	282	1.2
Dem. Rep. Congo	9	X	56.4	2,345	24	3.0
Republic of Congo	4	X	3.9	342	12	
Côte d'Ivoire	5	X	17.4	322	54	4.0
Equatorial Guinea	2		0.5	28	18	1.2
Eritrea	3	X	4.6	118	39	5.2
Ethiopia	5	X	71.3	1,104	65	4.0
Gabon	3		1.4	268	5	1.6
Gambia, the	1		1.5	11	130	5.2
Ghana	3		21.4	239	90	4.0
Guinea	6		8.2	246	34	4.2
Guinea-Bissau	2	X	1.6	36	44	4.8
Kenya	5		32.9	580	57	16.0
Lesotho	1		1.8	30	61	
Liberia	3		3.5	111	32	2.0
Madagascar	0		17.7	587	30	8.1
Malawi	3		11.4	118	96	3.0

Mali	7		12.2	1,240	10	1.3
Mauritania	4		3.0	1,026	3	3.8
Mauritius	0		1.2	2	612	11.7
Mozambique	5	X	19.5	802	24	2.0
Namibia	3		2.0	824	2	
Niger	7		12.4	1267	10	1.9
Nigeria	3		143.3	924	155	1.3
Rwanda	4	X	8.4	26	320	2.4
São Tome & Principe	0		0.2	1	171	1.5
Senegal	5		10.6	197	54	12.2
Seychelles	0		0.1	0[362]	189	2.7
Sierra Leone	2	X	5.5	72	77	3.8
Somalia	3	X	10.3	638	16	6.1
South Africa	6	X	45.3	1,219	37	
Sudan, the	8	X	35.2	2,506	14	1.6
Swaziland	1		1.1	17	65	
Tanzania	7		37.2	945	39	21.7
Togo	3		5.1	57	89	5.3
Uganda	5	X	27.2	241	113	7.3
Zambia	7		10.9	753	15	5.1
Zimbabwe	4		13.1	391	34	8.1

Source: H. Broadman, *Africa's silk road* (2007).

3.2. The definition

'Politically insecure and resource rich states in Africa' (PIRSA) is a phrase that this dissertation coins. Since it has no precedent in other pieces of scholarly research, the phrase requires careful definition for the sake of clarity, coherence and consistency. It is just as important to define the phrase PIRSA so as to narrow down the list of relevant countries and those that will be the focus of this dissertation. Surely, it is not only the case that the majority of countries on the continent are richly endowed,[363] but it is also highly impracticable to be all-embracing because R4I contracts – the object of this

[362] Surface area of Seychelles is 450 square kilometers.

[363] Relying mainly on economic data from the CIA World Factbook [https://www.cia.gov/library/publications/the-world-factbook/index.html (last accessed Dec. 16, 2009)], the dissertation found that, of the 53 countries constituting the African continent, at least 30 countries are resource rich, namely Algeria, Angola, Botswana, Cameroon, Chad, the Democratic Republic of the Congo (D.R.C.), the Republic of Congo (Congo-Brazzaville), Côte d'Ivoire, Egypt, Equatorial Guinea, Gabon, Ghana, Guinea, Liberia, Libya, Mali, Mauritania, Morocco, Namibia, Niger, Nigeria, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

dissertation – are likely to be incompatible with some legal and economic systems in Africa.

PIRSA is a complex, multilevel and multidimensional concept. At its most basic, it relates to countries affected by the resource curse in Africa. At a secondary level, the phrase refers to countries in Africa richly endowed with minerals and hydrocarbons that exhibit (1) undemocratic regime types, (2) poor economic governance, and that are either resurging from, plunging into or in the throes of (3) armed conflict. At the third level, the indicator level,[364] the dissertation uses the Freedom House's rankings of countries,[365] the World Bank's database[366] and the Fund for Peace's rankings of failed states, to measure regime type,[367] economic performance[368] and security situation,[369] respectively. These definitional requirements must be met cumulatively, which means that, if a country does not fulfill any of those requirements, it cannot be regarded as a PIRSA.

[364] This definition of the concept PIRSA follows the three-level model of concept definition expounded in GARY GOERTZ, SOCIAL SCIENCE CONCEPTS: A USER'S GUIDE (Princeton University Press 2006).

[365] Information on the methodology of Freedom House is available at www.freedomhouse.org (last accessed Dec. 16, 2009). By way of summary, here is a reproduction of the most essential information on the Freedom House's rating methodology: The ratings process is based on a checklist of 10 political rights questions and 15 civil liberties questions. The political rights questions are grouped into three subcategories: Electoral Process (3 questions), Political Pluralism and Participation (4), and Functioning of Government (3). The civil liberties questions are grouped into four subcategories: Freedom of Expression and Belief (4 questions), Associational and Organizational Rights (3), Rule of Law (4), and Personal Autonomy and Individual Rights (4). Scores are awarded to each of these questions on a scale of 0 to 4, where a score of 0 represents the smallest degree and 4 the greatest degree of rights or liberties present. Each pair of political rights and civil liberties ratings is averaged to determine an overall status of "Free," "Partly Free," or "Not Free." Those whose ratings average 1.0 to 2.5 are considered Free, 3.0 to 5.0 Partly Free, and 5.5 to 7.0 Not Free.

[366] Contained in Table 21 'Heterogeneity of sub-Saharan Africa' above.

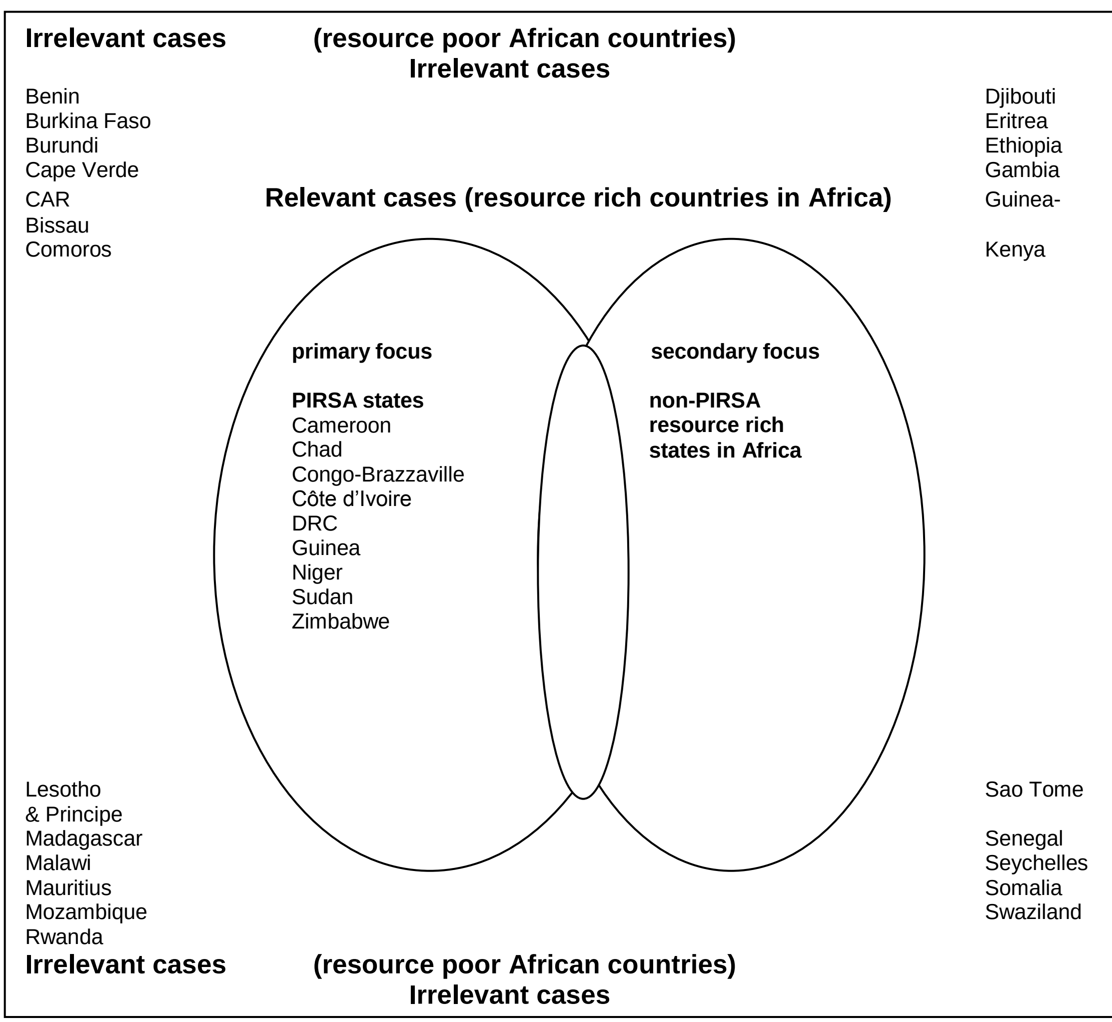
[367] A Freedom House rating of 'Not Free' would indicate a country situation meets the political dimension of the definition of the PIRSA concept.

[368] The dissertation examines the cumulative effects of the average GDP growth rate from 1996 to 2000, to the GDP per capita, the GDP per sector and the export diversification index to determine whether the economic performance of a country in Africa has been poor.

[369] A Fund For Peace rating of 'Alert' would indicate that a country situation meets the security dimension of the definition of the PIRSA concept.

Using the above thick concept of PIRSA, the countries in Africa that fall under that definition consist of Zimbabwe, Sudan, Chad, the Democratic Republic of the Congo (DRC), Guinea, Côte d'Ivoire, Niger, Cameroon, and Republic of Congo (Congo-Brazzaville). These 9 countries are relevant cases, cases to which the R4I model elaborated in this dissertation should apply. Relevance in the cases of Zimbabwe, Sudan, the DRC, Guinea, Congo-Brazzaville and Angola is also due to the available evidence that these states entered with China into agreements involving natural resources. The 21 non-PIRSA[370] are relevant to this dissertation even if they are not its primary focus (see Figure 11 below) because it is possible to apply the R4I contract model to non-PIRSA as has been done in Angola, Gabon, Ghana and Nigeria.

Figure 11: Scope of the dissertation



The entire usefulness of the PIRSA concept lies in the fact that it indicates the sort of obstacles that might block R4I contracts and more traditional investment contracts from benefiting states and their respective people in Africa. Put another way, the usefulness of the PIRSA concept is that it signals that the costs of doing business is high in the countries that it stands for. From an economic analysis of investment contracts, high transaction costs are inefficient. Inefficiencies in the infrastructure sector alone already cost countries in Africa 17 billion US dollars every year.[371]

The comparative advantage of a particular investment contract type over another is therefore a function of its ability to intercede in the reduction of transaction costs or/and the resolution of one or more dimensions of the resource curse. A phrase that carries that comparative advantage is 'flexibility for development'. This sort of flexibility can be understood as the 'ability of an investment contract to be adapted to the particular conditions prevailing in developing countries and to the realities of the economic asymmetries between these countries and developed countries.'[372] In other words, it is the greater flexibility for development that makes, for the purposes of this dissertation, one investment contract type more beneficial to developing countries and PIRSA than another type.

3.3. The contexts

The contexts in which most countries in Africa evolve are marked by accountability, capacity and security issues. According to Transparency International, more than half

[371] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 31.
[372] UNCTAD, INVESTMENT AGREEMENTS VOL. I., *supra* Ch. 1 note 67, at 53.

of the most corrupt[373] countries were in Africa in 2008.[374] Of the 18 countries in that category of countries, 10 were African.[375] Ranked from the most corrupt, these countries were Somalia, Sudan, Chad, Guinea, Equatorial Guinea, Burundi, Guinea Bissau, the DRC, and Congo-Brazzaville.[376] Moreover, the Fund for Peace ranks countries in terms of institutional capacity.[377] It had, as of October 2008, a list of 32 failed states. Of these 38 failed states, 22 were located in Africa.[378] In descending order of state failure, these African countries were Somalia, Zimbabwe, Sudan, Chad, the DRC, Central African Republic (CAR), Guinea, Cô te d'Ivoire, Kenya, Nigeria, Ethiopia, Uganda, Niger, Burundi, Cameroon, Guinea Bissau, Malawi, Congo-Brazzaville, Sierra Leone, Burkina Faso, and Eritrea.[379]

The reason why PIRSA should resort to R4I contracts ultimately lies in governance issues. If a host country is faced with governance challenges, the need for greater transparency, or an institutional failure to build infrastructure, it makes sense for that country to resort to R4I contracts.[380] It is in that sense that R4I contracts can be viewed

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[373] 'Most corrupt countries' refers to the lowest tenth on the list of transparency/corruption of Transparency International.
[374] Transparency International, Corruption Perception Index 2009, http://www.transparency.org/policy_research/surveys_indices/cpi/2009/cpi_2009_table (last visited May 21, 2010).
[375] *Id.*
[376] *Id.*
[377] The Fund for Peace uses six political indicators, two economic indicators and four social indicators. The six political indicators are criminalization and/or delegitimization of the state, deterioration of public services, misapplication of the rule of law and human rights violations, the security apparatus operating as a state within a state, the rise of factionalized elites, and the intervention of other states or external political actors. The economic indicators are uneven economic development among group lines and severe economic decline. Finally, the social indicators mounting demographic pressures, massive movement of refugees or internally displaced persons (IDPs), legacy of group grievance, and human flight.
[378] The Fund for Peace, Failed States Index Scores 2009, http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=99&Itemid=140 (last visited May 21, 2010).
[379] *Id.*
[380] Phone interview with Vivien Foster, *supra* Ch. 4 note 163.

as a mechanism to bind host governments into performing a governance function, that is, public investments in social and economic infrastructure.

Unsurprisingly, as the World Bank report on the ease of doing business demonstrates, it is hard to do business in the countries plagued by conflict, corruption, or institutional dysfunction on the continent.[381] Effectively, the World Bank shows that countries with the least conducive regulatory environment for business are the CAR, DRC, Guinea-Bissau, São Tomé & Principe, Republic of Congo, Chad, Burundi, Eritrea, Niger, Guinea, Benin, Cameroon, Equatorial Guinea and Angola.[382]

Table 22: Comparative ease of doing business in Africa[383]

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[381] *See* World Bank, Doing Business 2010, http://www.doingbusiness.org/EconomyRankings/?regionid=7.
[382] *Id.*
[383] Adapted from World Bank, Doing Business 2010, *supra* note 216.

Economy	Ease of Doing Business Rank	Starting a Business	Getting Credit	Protecting Investors	Paying Taxes	Enforcing Contracts
Singapore[384]	*1*	*4*	*4*	*2*	*5*	*13*
United States	*4*	*8*	*4*	*5*	*61*	*8*
United Kingdom	*5*	*16*	*2*	*10*	*16*	*23*
Mauritius	17	10	87	12	12	66
France	*31*	*22*	*43*	*73*	*59*	*6*
South Africa	34	67	2	10	23	85
Botswana	45	83	43	41	18	79
Namibia	66	123	15	73	97	41
Rwanda	67	11	61	27	59	40
Tunisia	69	47	87	73	118	77
China	*89*	*151*	*61*	*93*	*125*	*18*
Zambia	90	94	30	73	36	87
Ghana	92	135	113	41	79	47
Kenya	95	124	4	93	164	126
Egypt, Arab Rep.	106	24	71	73	140	148
Ethiopia	107	93	127	119	42	57
Seychelles	111	81	150	57	34	70
Uganda	112	129	113	132	66	116
Swaziland	115	158	43	180	54	130
Nigeria	125	108	87	57	132	94
Morocco	128	76	87	165	126	108
Brazil	*129*	*126*	*87*	*73*	*150*	*100*
Lesotho	130	131	113	147	63	105
Tanzania	131	120	87	93	120	31
Malawi	132	128	87	73	24	142
India	*133*	*169*	*30*	*41*	*169*	*182*
Madagascar	134	12	167	57	74	155
Mozambique	135	96	127	41	98	129
Algeria	136	148	135	73	168	123
Gambia, the	140	114	135	172	176	67
Cape Verde	146	136	150	132	110	38
Burkina Faso	147	115	150	147	144	110
Sierra Leone	148	58	127	27	161	144
Liberia	149	57	135	147	85	166
Sudan	154	118	135	154	93	146
Mali	156	139	150	147	158	135
Senegal	157	102	150	165	172	151
Gabon	158	152	135	154	107	150
Zimbabwe	159	145	113	119	131	78
Comoros	162	168	167	132	41	153
Djibouti	163	177	177	178	65	161
Togo	165	170	150	147	155	154
Mauritania	166	149	150	147	175	83
Côte d'Ivoire	168	172	150	154	152	127
Angola	169	165	87	57	139	181
Equatorial Guinea	170	178	135	147	163	72
Cameroon	171	174	135	119	170	174

[384] Countries in *italics* are not African but have been included in the table for purely comparative purposes.

Benin	172	155	150	154	167	177
Guinea	173	179	167	172	171	131
Niger	174	157	150	154	141	138
Eritrea	175	181	177	109	110	48
Burundi	176	130	167	154	116	172
Chad	178	182	150	132	133	170
Congo, Rep.	179	166	135	154	180	159
São Tomé and Principe	180	140	167	154	160	179
Guinea-Bissau	181	183	150	132	130	143
Congo, Dem. Rep.	182	154	167	154	157	172
Central African Republic	183	159	135	132	179	171

4. The applicability of resource curse theories

This chapter discussed risk, the resource curse and PIRSA. It now concludes by reflecting on the applicability of the resource curse to PIRSA and other resource rich countries in Africa. So many criticisms have been leveled against resource curse theories or their methodologies that it is legitimate to ask whether scholars should continue employing them or replace them with other theoretical frameworks. So many intervening variables are left out of the causal chain that one is entitled to question whether it has ever been incontrovertibly established that natural resource windfalls cause economic stagnation, authoritarian regimes or civil wars. For example, it is unclear whether the resource curse applies to all natural resource economies or just a portion of them.[385] Neither is the evidence conclusive as to which line of causation the resource curse hypothesis runs:[386] It is indeed possible that the disappointing social and economic policies are the cause rather than a result of human poverty and civil strife in resource rich countries.

[385] Andrew Rosser, *supra* note 75, at 13.
[386] *Id.*

Recent research has demonstrated that the Dutch disease is premised on factually incorrect assumptions[387] and that the negative terms-of-trade effect of a rich resource endowment may be statistically significant at the global level and yet still be elusive at the national level.[388] In addition, a number of scholars have produced evidence contradicting the resource curse theory. Prominent among those are studies that found no support for the causal relationship between natural resources and civil wars.

Realizing the deficiencies of a purely economic analysis, economists have co-opted perspectives from political science. Economists have come to that realization because it became obvious that public policy as an intervening variable was an indispensable piece of the resource curse puzzle. On the other hand, unlike economic explanations, political explanations of the effect of resource windfalls on economic performance are by and large untested either quantitatively or by rigorous qualitative case studies. This situation resulted in the failure to build a cumulative body of knowledge on the policy failures of resource rich countries and in 'underspecified' arguments with 'nebulous variables, ambiguous domains of relevant cases and fuzzy causal mechanisms.'[389]

However, both economic and political explanations have not sufficiently taken account of the part that social forces and structures play in mediating the relationship between natural resources and development outcomes. Like Gwenn Okruhlik (1999) has argued, the rentierism suffers from economic determinism and that it is limited because it

[387] Michael L. Ross, *Review Essay, supra* note 75, at 305-306 (stating that the Dutch disease wrongly assumes that (1) an economy's capital and labor supplies are fixed and fully employed before a resource boom starts and that (2) domestic and foreign goods are perfect substitutes).
[388] *Id.* at 303.
[389] *Id.* at 308-309.

relegates political choices to the back seat, thereby neglecting the linkages between the state's deployment of rents and its political consequences for certain social groups.[390]

The latter point raises the issue of determinism, which is the mechanical kernel of the resource curse theory. The problem with resource determinism, like all determinism, is that it fails to account for variations in the development outcomes of individual resource rich countries because it does not see individual groups as having much control over their lives. For example, the resource curse theory would not be able to explain why resource rich countries, like Botswana, Namibia, South Africa, Ghana and Algeria, have so far fared admirably well in economic and political terms. Some scholars have stated that they are analyzing general tendencies so that their analyses do not necessarily prevent the possibility of variations in mediating variables and development outcomes.[391] While this justification is a reasonable one, it still does not remove the necessity to explain variations as this is the only way to devise strategies to help resource rich countries avoid the curse.

In conclusion, the resource-outcome causal relationship is moderated by several third variables, making it difficult to draw any conclusion as to the causality in that multivariate relationship. It is for that reason that this dissertation utilizes the resource-outcome relationship as a *simple association* that indicates the kinds of risks that foreign investors run and the kind of factors that might preclude investment contracts from achieving their goals in resource rich countries in Africa. It is that revisited version of the resource curse that the dissertation has endogenized in its R4I model to make it one of its major assumptions.

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[390] Gwenn Okruhlik, *Rentier Wealth, Unruly Law, and the Rise of Opposition: The Political Economy of Oil States*, 31 COMP. POL. 3 295-316 (1999).
[391] Andrew Rosser, *supra* note 75, at 23.

The next chapter presents the clauses of R4I contracts and how they tackle some of the stumbling blocks particular to the political economy of resource rich countries.

CHAPTER 6

RESOURCE-FOR-INFRASTRUCTURE VERSUS TRADITIONAL INVESTMENT CONTRACTS

The core argument of this dissertation is unfolding from this point onwards. To recall, the core of the dissertation's argument is that R4I contracts edge over traditional investment contracts. Preceding chapters laid down three premises of that argument. The first premise was that economic complementarities between China and Africa drive China's FDI in Africa. China needs raw materials to feed its growth and Africa needs infrastructure to kick-start or bolster hers. The second premise states that such macroeconomic fundamentals have resulted in China's investing in mining and infrastructure in Africa. The third and most important finding was that resource-for-infrastructure contracts are the contractual dimensions of China's FDI in mining and infrastructure in Africa, and best translate Sino-African economic complementarities in a contractual form. Thus, resource-for-infrastructure contracts are the contractual form of economic complementarities between China and Africa. In sum, the three premises of the dissertation's core argument express a strong link between macroeconomic fundamentals, FDI and contract terms.

The previous chapter showed that, either for resource-for-infrastructure contract models or more traditional investment contracts, risks and costs are high in most resource rich countries in Africa. This chapter is a surgical examination of R4I contracts and a demonstration of the comparative advantage of the resource-for-infrastructure investment contract model in reducing these risks and costs. It first submits that R4I investment contracts can be seen as a mining contract, as an infrastructure contract, or as both, even if they are not quite the addition of a mining and an infrastructure contract. In fact, the R4I contract type is a hybrid, a combination – and not the mere addition – of PSAs and turnkey projects, which are mining and infrastructure contracts, respectively. To arrive at that conclusion, the chapter compares R4I contracts with traditional investment contracts in mining and infrastructure.

Accordingly, the chapter is divided in five major parts. The first part examines R4I contracts and the second part distinguishes them from similar or closely related contracts. The third part examines the resource leg and the next part the infrastructure leg of R4I contracts. The final part compares R4I contracts with production-sharing agreements (PSAs) and with BOT projects.

1. Resource-for-infrastructure contracts

1.1. Introduction

The first part of the present chapter dissects R4I contracts and sets them apart from similar or closely related contracts. It aims to dissipate conceptual clouds and clarify the nature of this emerging mode of Chinese contracting in the mining sectors of Africa. In the main, this part shows how prevailing representations of the deals inexorably lead to misrepresentations, inaccuracies and uncertainties. It shows those defects in three phases. In the first phase, it explains the basic concept of 'resource-for-infrastructure' (R4I) and describes the R4I deals in question. The second phase shows how the deals differ from asset-based project finance and barter trade agreements. The third phase concludes by noting that most analyses of R4I contracts tend to confuse R4I contracts with existing contracts and that, in doing so, they blind themselves and largely fail to see the innovative nature of R4I contracts.

Pundits on China-Africa relations have often baptized recent Chinese mining deals in Africa contradictory names. A first group, which includes the World Bank and prominent scholars, calls those deals 'resource-backed' transactions; a second group prefers to call them 'barters;' and a third group simply cannot find the right name for them. To make matters worse, some scholars in those groups use the names 'resource-backed' and 'barters' interchangeably.

This debate about names would have been comparable to the notoriously futile Byzantine discussions about the sex of angels if it did not disclose a deep conceptual confusion about what those deals are. Indeed, the first group maintains that in those deals natural resources are merely used as pawns; the second group insists that resources are part of a broader barter agreement; and the third group finds no precedents for those deals in contract law history.

The rub is that these conceptions of the Chinese mining deals as security, as barter and as unprecedented, are contradictory and mutually exclusive. First off, a transaction cannot be simultaneously a pawn and a barter. Second, pawns and barters are not new, unique or unprecedented. So what are those deals then? And what should they be called? Most importantly, why should one even bother to know the true nature or proper name of those Sino-African resource deals? The following answer those questions.

1.2. The resource-for-infrastructure concept

Mainstream representations of R4I contracts assume a clear, specific, unified and widely accepted concept of the resource-for-infrastructure model. The truth, unfortunately, is that no such concept exists. A report by the respected UK NGO Chatham House entitled *Thirst for African Oil*, published in 2009, is a good instance of the wrong assumption of a unified understanding of the resource-for-infrastructure model.[1] The *Thirst for African Oil* report purports to provide a comparative study of the impact of Asian oil corporations in Nigeria and Angola, and to show the different fortunes of the Asian oil corporations in those two countries.[2] The report then states that it especially examines the use of oil-for-infrastructure deals or 'Angola mode'.[3]

[1] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29.
[2] *Id.* at vii.
[3] *Id.*

The *Thirst for African Oil* report observed that while Nigeria was 'playing politics' with Asian oil corporations, Angola was driven by economic necessity to quickly access funds in order to finance its post-war reconstruction.[4] As a consequence, concludes the report, 'the oil-for-infrastructure concept worked in Angola but not in Nigeria.'[5] It attributes the 'failure of the oil-for-infrastructure deals' in Nigeria to the failure of the then-President Olusegun Obasanjo's government to manage the scheme.[6]

The reasoning and conclusion of the *Thirst for African Oil* report stir up two fundamental issues: Did contracts exist between Nigeria and the Asian oil companies and, if so, what form did those contracts take on? The report's answer to the first question reveals an internal contradiction. First, the report concludes that the 'key weakness' of the concept of oil-for-infrastructure in Nigeria was that there were 'no legally binding agreements that would have tied the development of oil blocks to the simultaneous delivery of the infrastructure.'[7] The report cannot conclude that the oil-for-infrastructure 'deals' in Nigeria failed and conclude at the same time that there was no legally binding agreements tying oil development to infrastructure development. Saying that there were no legally binding agreements to tie oil to infrastructure is tantamount to saying that there was no oil-for-infrastructure contract in the first place. Assuming that the statements made in the report are true, it is a contradiction to claim that a contract that never came into being in the first place has subsequently failed.

Studies on China's engagement with Africa consistently conceive economic exchanges whereby a host country in Africa trades its resources for China's construction of local

[4] *Id.* at 3.
[5] *Id.*
[6] *Id.*
[7] *Id.* at 27-28.

infrastructure as transactions of a contractual nature. However, while *it is clear that the basic idea of resource for infrastructure consists in swapping through contracts natural resources for infrastructure*, it is not clear how this swap is to be achieved. This uncertainty is because the basic idea of resource for infrastructure can take several forms. The Angola mode that the report is referring to in describing oil-for-infrastructure is the connection or tying of resource extraction to the development of infrastructure. As shown later in this chapter, this connection or tying has been achieved with actual R4I contracts through the innovative combination of a mining or oil contract and an infrastructure project. By stating that there were no legally binding agreements tying resource extraction to infrastructure development in Nigeria, the report is indirectly stating that those contracts, if there ever was one, took any contract form except an oil-for-infrastructure form. In fact, the report presents separate and distinct contracts (i.e. memoranda of understanding (MOU), rights of first refusal (RFR) and oil block sales) as oil-for-infrastructure deals on the mere basis that the President Obasanjo intended to exchange oil blocs for a promise by Asian oil corporations to construct key infrastructure. It does not differentiate between the MOU, the RFR and the eventual sale of oil blocs that it says President Obasanjo used to achieve his purpose. For all these reasons, the so-called oil-for-infrastructure deals sealed in Nigeria that the report evaluates were not contracts in any legal sense[8] and, assuming that they were indeed legal contracts, they did not embody a resource-for-infrastructure form.[9]

[8] Phone interview with Markus Weimer, Research Fellow in the Africa Programme at Chatham House (May 24, 2010)(explaining that the 'oil-for-infrastructure deals', as used in the *Thirst for African Oil* report, referred not only to commercial transactions but also to political deals).
[9] Incidentally, the fact that those Nigerian contracts, as presented in the report, were not legal contracts means in turn that they were not comparable to the resource-for-infrastructure contracts signed in Angola because the latter deals were contracts in the legal sense of the word.

The defects in the *Thirst for African Oil* offer two important lessons. First, it is not because a party intends to exchange natural resources for infrastructure that the arrangement that he will enter into will necessarily take the contractual form of resource for infrastructure. Second, before moving on to analyze and evaluate R4I contracts, it is a prerequisite to ensure that those contracts were formed in the first place.

The next section lists and briefly describes the known R4I contracts.

1.3. The deals

An informative 2009 World Bank study entitled *Building Bridges* reported a number of deals in which Chinese investors associated natural resources, mainly oil, with infrastructure investments in resource rich countries in Africa.[10] It documented eight such deals, struck between 2001 and 2007. According to the report, China has entered into 'resource-backed' deals with Congo-Brazzaville in 2001, Sudan in 2001, Angola in 2004, Nigeria in 2005, Guinea in 2006, Gabon in 2006, Zimbabwe in 2006, and Ghana in 2007. After 2007, at least three other similar contracts have been entered into by Chinese investors with the DRC in 2008, Guinea in 2009, and Ghana in 2010. China even employed the R4I model that it used in Africa to negotiate the swap of Indonesia's coal for China's financing of the crumbling infrastructure in Indonesia.[11]

Table 23: Resource-for-infrastructure contracts in Africa

Country	year	Status	Resource	Project	Financing
					(in million

[10] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 55ff.
[11] Anthony Deutsch, Indonesia Swaps Coal for Infrastructure, Financial Times (UK), http://blogs.ft.com/beyond-brics/2010/09/09/rebounding-asia-drives-demand-for-indonesian-coal/ (last visited Nov. 15, 2010).

					US dollars)
Rep. Congo	2001	under construction	oil	Congo River (Imboulou) dam	280
Sudan	2001	completed	oil	El-Gaili Power Plant	128
Angola	2004	mostly completed	oil	repair of infrastructure bombed in the country's civil war	4,500
Nigeria	2005	completed	oil	Gas turbine power plant at Papalanto	298
Guinea	2006	Re-assessed	bauxite	Souapiti Dam project	1,000
Gabon	2006	agreement	iron	Bélinga iron ore reserve	790
Zimbabwe	2006	agreement, possibly not materialized	chromium	new coal mines and 3 thermal power stations in Dande, the Zambezi valley on the Zambian border	not available
Ghana	2007	under construction	cocoa	Bui Dam hydro-power project	662
DRC	2008	under construction	copper, cobalt	various basic mining and social infrastructure	6,000
Guinea	2009	re-assessed	various minerals	various mining and social infrastructure	7,000
Ghana	2010	agreement	oil	roads and railways networks	10,400
Total					31,058

Source: author; V. Foster *et al.*, *Building bridges: China's growing role as infrastructure financier in Africa* (2009) 57.

In all those deals, resource and infrastructure investments coincided. Chinese investors have built or are building infrastructure in return for or backed by oil exports in the case of Congo-Brazzaville, Sudan, Angola, Nigeria and Ghana. In the case of Guinea, Gabon, Zimbabwe, Ghana, the DRC, the natural resources associated with China's infrastructure finance are bauxite, iron, chromium, cocoa, and copper and cobalt, respectively. While the total value of these investment contracts is in excess of 31 billion US dollars, the biggest deals by value are the ones that Chinese investors signed with Angola (4.5 billion US dollars), the DRC (6 billion US dollars) Guinea (7 billion US dollars), and Ghana (10.4 billion US dollars).

1.4. Resource-backed transactions

The first sub-literature on the Chinese mining deals calls them and views them as 'resource-backed' or 'resource-based' transactions or loans.[12] Underlying this designation and view is an assumption, explicit or implicit, that the deals are instances of asset-based project finance. Here is the scenario. China invests in infrastructure projects in a given resource rich host country in Africa by both providing a huge loan and by carrying out itself the infrastructural works. The host country is obliged in terms of the loan agreement to pay for the loans with its natural resources. In order to insure against the risk that the host country will fail to repay the loan, China agrees with the typically credit unworthy host country that the latter pledges its natural resources as collateral. Therefore, in this scenario, resources are both a mode of payment and security for the repayment of the loan.

The view that natural resources may be payment and collateral at the same time does not echo the available terms of R4I contracts, which reveal that natural resources function primarily like payment as distinct from collateral. The resource-backed conception of the Chinese deals pays little attention to the intention of the parties concerning the property rights involved in those transactions. Since the parties intend natural resources to be a mode of payment upon signing a R4I contract, China lays a claim over the natural resources as the owner thereof and not as a pledgee. It is clearly apparent from the terms of R4I contracts that natural resources is primarily the object of performance due in return for loans, and neither a remedy for nor protection against a possible breach of the parties' agreement by the borrower.

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[12] Examples of such designations and views can be found in VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 22; DEBORAH BRÄUTIGAM, *supra* Ch. 2 note 11; and Lucy Corkin, *All's Fair in Loans and War: The Development of China-Angola Relations, in* CROUCHING TIGER, HIDDEN DRAGON? AFRICA AND CHINA 108-123 (Kweku Ampiah & Sanusha Naidu eds. 2008).

However, the situation may be different when the Chinese investors build the infrastructure first and receive *payment* of natural resources some time after construction commenced *in installments*. In all the known R4I contracts performance is not simultaneous and entails payments of natural resources in installments, owing to the structure of R4I contracts as long-term foreign investment. At any point in time before the Chinese investors are in effective control of the natural resources, the resources function as collateral. This is a necessary inference from the fact that when a buyer buys something and pays in installments, the seller is essentially making a loan, [13] with the consequence that the non-simultaneous performance by the parties amounts to a sale on credit. Some form of commitment, by posting collateral or otherwise, is necessary in exchanges where performance is sequential, because the contracting party who performs first is effectively extending credit to the party who performs second.[14]

Nonetheless, there is a difference between a credit sale and a R4I contract in the case of a default. If a buyer defaults on a loan, the seller in a credit sale can repossess the thing sold whereas the seller of infrastructure works in a R4I contract cannot claim back the infrastructure he built. The seller can however impound property owned by the buyer in executing a court order in the seller's favor. The seller can also claim damages or claim that the buyer provides additional natural resources should the ones already provided in terms of a R4I contract prove insufficient.[15] Therefore, the correct position is that natural resources constitute payment in consideration of the overall structure of the

[13] JEFFREY L. HARRISON & JULES THEEUWES, *supra* Ch. 1 note 19, at 208.
[14] Benjamin E. Hermalin, *supra* Ch. 3 note 233, at 10.
[15] This remedy was an explicit clause of the R4I contract between the DRC and China. However, due to the heavy pressure exerted by the IMF on the DRC government to remove this clause from the contract, the DRC government and China eventually agreed to remove the clause from the contract.

deals and intention of the parties, but that they work like collateral before payment and to the extent that resources are needed to cover the costs of infrastructure works.[16]

The most relevant observation when it comes to the conception of the R4I deals as resource-backed or resource-based is that it reflects a failure to read those deals properly. Admittedly, infrastructure contracts, like BOT schemes, are depressingly complex. With such arrangements, the question becomes: ‘How to navigate through and make sense of a vast complex of bewildering networks of contractual obligations?’ The answer to this question is to be found in the principle of international commercial contracts that says that contracts should be interpreted according to the common intention of the parties.[17]

The common intention of the parties and the purpose of contracts are found in the clauses framing the relationship between the parties; and there is no ideal place other than the framework agreement where to find such constitutive clauses. Most of the known deals that involve the exchange of resources for infrastructure in Africa (e.g. Angola, the DRC, Guinea) are structured by a framework agreement. Framework or concession agreements may incorporate other related contracts like a shareholders' agreement and a loan agreement, but it is still possible to identify the constitutive clauses according to their position at the beginning of the framework agreement and the role that they play in organizing the overall contractual relationship.

[16] Nils Tcheyan shared this opinion (phone interview with Nils Tcheyan, *supra* Ch. 3 note 237) by telling the author that natural resources in R4I contracts were more payment than collateral.
[17] UNIDROIT Principles of International Commercial Contracts art. 4.1, 2004, International Institute for the Unification of Private Law.

A close look at the common intention of the parties and the constitutive clauses of framework agreements reveals that the resource-backed conception of the Chinese deals does not quite fit within the overall contractual relationship created by the deals. Where these agreements manifestly provide for an exchange of resources for infrastructure, the resourced-backed conception sees a massive infrastructure project financed by resource-backed loans. As is shown below, the resource-backed scholarship is ill-conceived, not so much because it is only partially true, but above all because it mistakes a part for the whole or – more precisely – because it makes a major part (i.e. infrastructure project) look greater than the whole (i.e. resource-for-infrastructure framework contract).

1.5. Barter agreements

A second sub-literature on emerging R4I deals in Africa conceives of those deals as a form of barter trade agreements.[18] This sub-literature adds an important element that resource-backed views tend to overlook or downplay, namely the mining contract. One of the first things that meets a bird's eye view of framework agreements between African countries and their Chinese counterpart is that those deals stand firmly on two long legs: A mining contract and an infrastructure contract. 'Resource-backed' concepts amputate, as it were, the mining leg as they over-emphasize the infrastructure contract and analyze natural resources only in relation to the infrastructure contract. Apart from giving the wrong impression that the deals are primarily infrastructure contracts, these views fail as a result to adequately explain the organic relationship that exists between the natural resources exploited in terms of the mining contract and the

[18] Examples of such views can be found in Paul Collier, *supra* Ch. 2 note 29; Hannah Edinger & Johanna Jansson, *supra* Ch. 1 note 25 at 8; Patrick Keenan, *supra* Ch. 1 note 31; senior economic officials in the DRC such as the Governor of the Congolese Central Bank, Jean-Claude Masangu; and Jean Paul Kimbulu Kandolo (interview with Jean Paul Kimbulu Kandolo, *supra* Ch. 5 note 34).

infrastructure built in terms of the infrastructure contract. If the proponents of resource-backed conceptions could provide adequate explanations of how the R4I deals worked and were organized, they would have realized that their explanations have no clear basis in the contracts that they set out to describe.

The group of experts that sees R4I deals as barter trade agreements seems to be more faithful to the essential terms of the deals than the one that sees them as secured transactions. Under the barter scenario, China 'sells' infrastructure to specific host governments in Africa and those governments 'buy' that infrastructure with natural resources as 'currency'. This sales metaphor should not however mask the fact that, unlike sales agreements, barters do not involve any transaction that sounds in money and that they only look like sales because barters are historically primitive forms of sales. The value of the infrastructure determines the amount of natural resources needed to 'buy' the infrastructure. Should there be any deficiency the host governments will have to 'pay' or 'save' more resources to cover the deficiency.

The oil-for-food resolution that the UN Security Council passed in 1995 is akin to a barter trade agreement.[19] Barter trade agreements, common in international trade, are a kind of countertrade, which accounts for 5 to 40 percent of world trade volumes.[20] Yet the UN Security Council resolution was not a contract but its terms resemble those of barter trade agreements and R4I contracts. The Security Council, convinced of the need to provide as a temporary measure for the humanitarian needs of the Iraqi people,[21] authorized the import of petroleum and petroleum products originating in Iraq

[19] S.C. Res. 986, U.N. Doc. S/Res/986 (Apr. 14, 1995) [hereinafter Oil-for-Food Resolution].
[20] Amanda J. Perry, Legal Implications of Countertrade in an Economic Context 3 (SOAS Law Department, Occasional Paper No. 2, Mar. 1996).
[21] Oil-for-Food Resolution preamble.

sufficient to produce 1 billion US dollars every trimester.[22] That amount was to be paid into an escrow account,[23] which would in turn finance the export to Iraq of medicine, health supplies, foodstuffs, materials and supplies for essential civilian needs.[24]

Yet, when all the facts are known, even conceptions that the Chinese mining deals are barters fall short of an accurate description for at least two reasons. First, 'barter', strictly defined as the contemporaneous exchange of commodities, is different from other forms of countertrade where exchange is executed at separate times, sometimes with 5 to 20 years of time interval.[25] Exchanges in some R4I contracts are not entirely contemporaneous, which suggests that R4I contracts are not entirely barters. For instance, with the DRC-China R4I contract, infrastructure construction began first and resource extraction will start 3 years later.[26]

It is also inaccurate to put R4I contracts in the same category as countertrade because those deals are not trade agreements but investment contracts, even if mining investments often translate into increased exports of primary commodities. The difference between trade and investment is fundamental and lies in the idea of political risks. Foreign direct investment runs over larger time horizons – a factor that results in political risks, which do not usually attend trade agreements. The difference is also visible in the impressive arsenal deployed in investment contracts to mitigate, if not eliminate, political risks. R4I contracts are equipped with a similar arsenal, as can be

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[22] Oil-for-Food Resolution ¶ 1.
[23] Oil-for-Food Resolution ¶ 1(b).
[24] Oil-for-Food Resolution ¶ 8(a).
[25] John E. Parsons, A Theory of Countertrade Financing of International Business 2-3 (Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Working Paper No. 1632-85, Mar. 1985).
[26] Colette Braeckman, *Paul Fortin, PDG de la Gécamines, Défend les Accords avec la Chine,* LE SOIR (Belg.), Feb. 28, 2008.

seen by the financial models employed, the high internal rates of return, the myriad guarantees and the reference of disputes to the ICSID, which is a neutral forum for the resolution of investment disputes.

1.6. Are R4I contracts new?

Now that preceding sections have demonstrated that resource-backed and barter conceptions of the R4I contracts are inaccurate when they are not distorting, can one be certain of the true nature of the deals? The answer is a simple 'No, so far'. It is this uncertainty that fuels the arguments of those experts who have said that the Chinese deals are unique. A mining expert, who has researched and been involved in several mining projects in Latin America, Africa and eastern Europe, said that in the 13 years of her career she has never seen a contract that resembles a R4I contract.[27] She noted that R4I contracts are a 'unique' type of contracts that cannot be classified as classical or typical.[28] A World Bank infrastructure specialist, with 16 years of experience, could not recall having been involved in a R4I contract.[29]

At the same time, the World Bank stated in its *Building Bridges* report that R4I contracts are 'by no means novel or unique, but follows a long history of natural resource-based transactions in the oil industry.'[30] However, in light of the demonstrations made earlier in this chapter, it is evident that the World Bank report mistakenly lumps asset-based project finance and R4I contracts together; and that the

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[27] Phone interview with Anida Yupari Aguado, Graduate Institute in Geneva (Apr. 17, 2010).
[28] *Id.*
[29] Phone interview with Jeffrey Delmon, Infrastructure Specialist, World Bank (Mar. 1, 2010). However, Delmon claimed that the basic idea of investing with the hope of accessing natural resources is as old as civilization.
[30] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 42.

report's assertion would apply only to the asset-based project financial facets of R4I contracts.

Deborah Bräutigam's highly instructive book *The Dragon's Gift* sheds some light on what might have been the origins of this type of contracts: Japan's trade and investment in and with China in the late 1970s.[31] However, the book does not clear the clouds of uncertainty over the present-day R4I contracts. This is because, in addition to being a resource-backed conception of the deals, the book indicates from the very words that it uses that what it describes are actually 'long-term trade' agreements[32] – and not investment contracts.

The uncertainty does not allow this chapter to confirm or deny the uniqueness or unprecedented nature of R4I contracts, but it proves that recurrent names and depictions of the R4I contracts are misnomers, thus misleading. The name that the author prefers is resource-for-infrastructure (investment) contracts because it depicts the overall contractual structure[33] set up by the parties without undue emphasis on either the mining or infrastructure part of the deal. Of course, other names, and better names for that matter, could be proffered and preferred. There is a sense in which names are arbitrary; and R4I contracts could be dubbed, let us say, 'Angola mode', kung-fu contracts, 'strategic deals', win-win business partnerships or China Inc. agreements. The point is that names can be arbitrary when they merely perform a naming function but they become problematic when they seek to define the thing that they refer to. In the latter case, names must be clear, accurate and rational.

[31] DEBORAH BRÄUTIGAM, *supra* Ch. 2 note 11, at 46ff.
[32] *Id.*
[33] This opinion is shared by Sanusha Naidu: Phone interview with Sanusha Naidu, Research Director of the Emerging Powers in Africa Programme at Fahamu (May 10, 2010).

1.7. The problem

The problem with the existing descriptions and classifications of the R4I contracts that some resource rich countries in Africa signed is that R4I contracts have been mischaracterized and misplaced into wrong categories. Effectively, the current characterizations of R4I contracts have been shaped and molded by and large by insights from political science, economics and development theory. There is neither a contract nor a contract law perspective on R4I contracts and, as a result, those deals have been described either as ‘resource-backed’ loans or ‘barter’ agreements even where the plain terms of those contracts unequivocally provided otherwise.

Moreover, different mining contracts have been squeezed under the same rubric. The relevant literature did not distinguish between mining contracts where natural resources are exchanged for infrastructure investments (i.e. R4I contracts) and where they have been used as collateral for those investments (i.e. secured transactions). Instead, they have all been painted with the same brush as a sort of asset-based project finance, completely ignoring the fact that some of these Sino-African mining contracts are more akin to barter trade agreements than resource-backed transactions. This indiscriminate use of the concepts ‘resource-backed’ and ‘barter’ has negative repercussions on assessments as to whether R4I contracts have succeeded or failed. This chapter instanced this risk of negative repercussions on assessments when discussing the flawed concept of resource for infrastructure in Nigeria by the Chatham House report *Thirst for African Oil*.

2. The terms of resource-for-infrastructure exchanges

2.1. Framework agreements

Framework agreements are the most essential contractual obligations in resource-for-infrastructure exchanges. Framework agreements are one of two key legal documents required by Chinese concessional finance, the other being loan agreements.[34] As their name indicates, they frame the agreements between resource rich states in Africa and their Chinese counterpart.

Perhaps, one of their foremost virtues is to evidence the common intention of the contracting parties and laying bare the overall structure of the parties' agreements. The Guinean Framework Agreement provides the clearest example of the purpose-revealing role of framework agreements. It declares that its objective is to 'coordinate and summarize the *global* intention of the parties and the principles by which the parties must cooperate within the framework of this agreement and agreements on future activities of the joint venture in the foreseeable future.'[35]

In the Angolan, Ghanaian, Congolese (DRC) and Guinean cases, China signed framework agreements with their counterparts. In both the Congolese and Guinean cases, the host government and China signed one main framework agreement on 22 March 2008[36] and on June 12, 2009, respectively. In the Ghanaian case, the parties signed one framework agreement, the 'Loan Framework Agreement', as well as a loan

[34] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 55.
[35] Le Fonds International de Chine, SA, une Société Agréée à Hong Kong et le Gouvernement de la République de Guinée, Jun. 12, 2009. (hereinafter Guinean Framework Agreement)
[36] Convention de Collaboration entre la République Démocratique du Congo et le Groupement d'Entreprises Chinoises : China Railway Group Limited, Sinohydro Corporation Relative au Développement d'un Projet Minier et d'un Projet d'Infrastructures en République Démocratique du Congo, Mar. 22, 2008. (hereinafter DRC Framework Agreement)

agreement.[37] With respect to the Angolan case, a minimum of two loan agreements and two framework agreements had been signed.

By Cabinet resolution, Angola approved on March 17, 2004 a loan agreement signed with China for an amount of 2 billion US dollars.[38] On October 20, 2004, the Angolan Cabinet resolved to approve a Framework Agreement on Strategic Public-Private Partnership between Angola and the Peoples' Republic of China (PRC).[39] On February 11, 2005, the Cabinet approved the Protocol on Economic and Technical Cooperation between Angola and the PRC.[40] The Cabinet also approved an additional credit line from China Eximbank in November 2007[41] and ratified a basic loan agreement that the Angolan government concluded with the China Investment Bank in July 2008.[42]

2.2. The basic structure

The common intention of the parties is evident from the framework agreements. The intended basic structure is the exchange of natural resources for national infrastructure through the instrumentality of two related investment contracts, a resource (mining or oil) contract and an infrastructure contract (see Figure 12 below). The relation between the two investment contracts is the extraction of minerals and hydrocarbons, the export of these resources, and the use of the revenues generated by these extractive and export activities to fund infrastructural works in the host country.

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[37] *See* Kwadwo Baah-Wiredu, Minister, Finance and Economic Planning, Remarks on the Occasion of the Signing of a Concessional Loan Agreement Between Ghana and the Export-Import Bank of China (May 26, 2007), http://www.mofep.gov.gh/speech_china_24907.pdf.

[38] Resolução No. 4/04, de 17 de Março de 2004, Diário da República de 26.03.2004. (Angl.)

[39] Resolução No. 31/04, de 20 de Outubro de 2004, Diário da República de 15.12.2004. (Angl.)

[40] Protocol de Cooperação Económica e Técnica entre o Governo da República de Angola e o Governo da República Popular da China, Resolução No. 53/05, de 11 de Fevereiro de 2005, Diário da República de 21.11.2005. (Angl.) [hereinafter Angolan Cooperation Protocol]

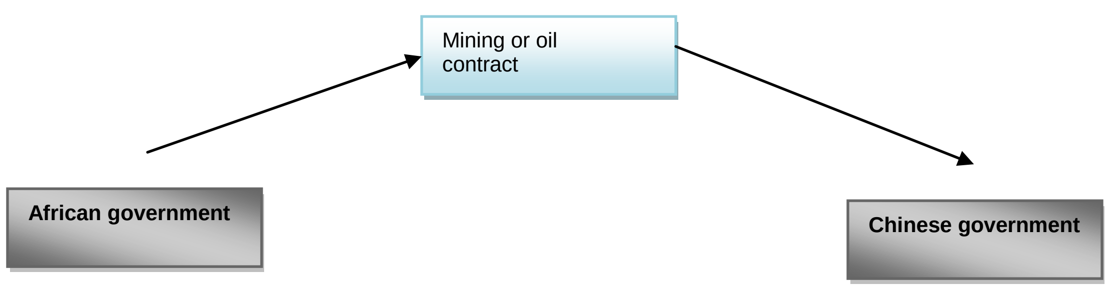
[41] Resolução No. 105/07, de 28 de Novembro de 2007, Diário da República de 20.11.2007. (Angl.)

[42] Resolução No. 76/08, de 30 de Julho de 2008, Diário da República de 19.9.2008. (Angl.)

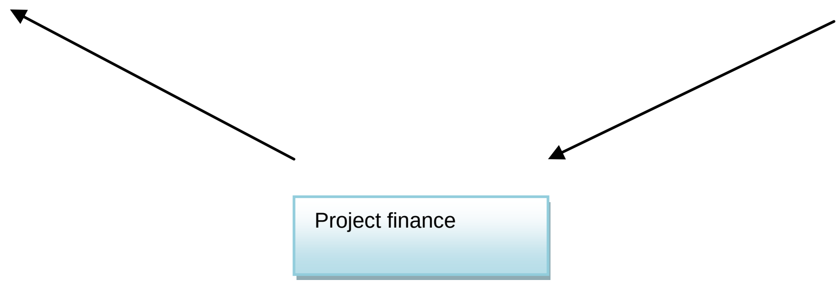
The basic mechanism of R4I contracts is visible in the DRC Framework Agreement and Angolan Cooperation Protocol. The DRC Agreement stipulates that the parties recognize and declare that by signing the present Agreement they pursue the realization of the following objectives.[43] For the DRC, the objective is to find the financial resources necessary for the realization of national infrastructure projects deemed important and urgent.[44] For the consortium of Chinese corporations, the objective is to invest in non-iron metals in the territories of the DRC.[45]

The Angolan Cooperation Protocol lays down that, at the request of the Angolan government, the Chinese government agreed to grant 50 million Yuan for a period of 10 years, counting from March 1, 2005 until February 28, 2015.[46] The Protocol specifies that the 50 million Yuan loan is for financing projects to be awarded to both the Chinese and Angolan governments.[47] It continues by providing that reimbursement of the loan is to be effected by the export of Angolan commodities or in convertible currency.[48]

Figure 12: Basic structure of R4I contracts



[43] DRC Framework Agreement art. 1.1.
[44] DRC Framework Agreement art. 1.1.1.
[45] DRC Framework Agreement art. 1.1.2.
[46] Angolan Cooperation Protocol art. 1.
[47] Angolan Cooperation Protocol art. 2.
[48] Angolan Cooperation Protocol art. 3.



2.3. Variations

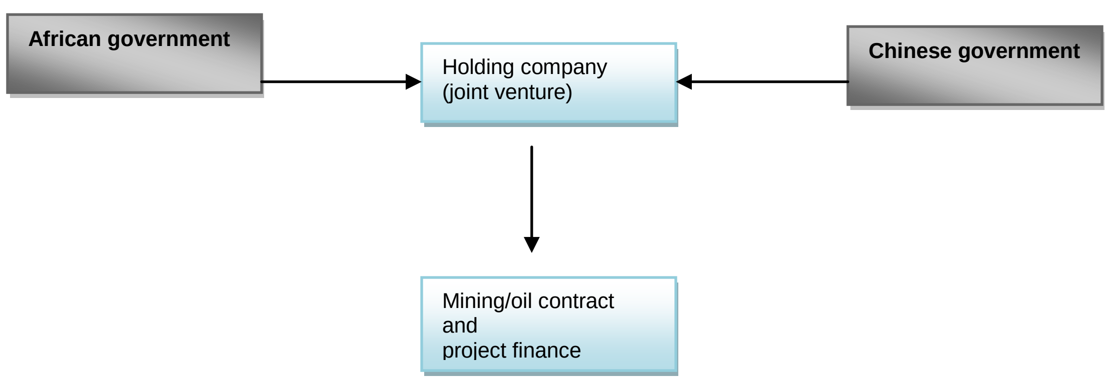
Beyond that basic structure, however, each framework agreement is unique; and several variations on that basic structure exist and are possible. Thus, the relation that exists between the Guinean government and Chinese investors unmistakably indicates that the Guinean Framework Agreement is not a pure type of R4I contracts (see Figure 13 below).

In terms of the Framework Agreement, the Guinean government must see to it, among other things, that the CIF and the joint venture obtain all the necessary permits and fiscal exonerations for the realization of the joint project and that they operate in conformity with Guinean law and regulations.[49] CIF, on the other hand, must ensure that it contributes to the appropriate financing of the joint project, conceive and implement projects to be agreed upon by the parties, and enable technology transfer and the utilization of the local workforce and industrial subcontracting.[50] In view of the general organization of the Guinean Framework Agreement, it would be more accurate to describe it as a resource-*and*-infrastructure contract rather than a resource-*for*-infrastructure contract.

[49] Guinean Framework Agreement art. 2.3(c).
[50] Guinean Framework Agreement art. 2.3(d).

In the Guinean Agreement, the exchange is not mediated by two related investment projects but by one single special purpose vehicle (SPV), a holding company in particular, combining infrastructural investments and the exploitation of minerals.[51] Another deviation of the Guinean Agreement from the basic structure is that the Chinese party is private, that is the Hong-Kong registered CIF. The CIF has considerably less resources than the Chinese government – a factor that probably explains why the parties did not opt for a pure type of R4I contracts. Accordingly, the Guinean variation of R4I contracts raises the question as to whether it is possible for private parties to enter into a pure type of R4I contracts with a host government in Africa without the private parties overrunning their economic resources.

Figure 13: Guinean variation of R4I contracts



[51] Guinean Framework Agreement art. 2.1.1.

3. Resource side of the agreement

3.1. Introduction

There are two sides to a R4I contract, the resource side and the infrastructure side. This part of the chapter examines the resource side and the next section tackles the infrastructure side of a R4I contract. The resource side of the deal habitually consists of a joint venture between a Chinese state-owned corporation and a host country's national resource company for the exploitation of natural resources. The joint venture then serves as a financing vehicle for the infrastructure projects.

3.2. Joint venture

The first installment in the formation of the resource project is the constitution of a joint venture. With R4I contracts, the resource side of the agreement almost invariably involves forming a joint venture between a Chinese state-owned corporation and a national mining or oil corporation. This was the case with Angola where the para-statal Sonangol established a joint venture with the Chinese stated-owned oil corporation Sinopec called Sinopec Sonangol International Ltd. (SSI).[52]

An exception is the Sino-Ghanaian R4I contract, which does not provide for a joint jointure between a Ghanaian national mining or oil corporation and a Chinese state-owned corporation. Instead, the parties have agreed that the Ghana Marketing Board, a state-owned institution, will export cocoa products to China to pay for the construction of the Bui Dam.[53] The Ghana Marketing Board does not produce cocoa directly; it

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[52] Fernando Paiva, *China-Angola: A Marriage of (In)convenience, in* CHINA, AFRICA, AND THE AFRICAN DIASPORA: PERSPECTIVES 228, 231-232 (Sharon T. Freeman ed. 2009).

[53] Phone interview with Kwabena Nyarko Otoo, Director of Labour Research & Policy Institute in Ghana (Apr. 19, 2010).

contracts with middle companies, which in turn negotiate the price of cocoa with cocoa farmers.[54]

Taxation is often the reason for the decision to form a joint venture,[55] but with China's FDI in the mining sectors of Africa it appears to be also a matter of China's foreign policy. Additionally, in some countries in Africa, like the DRC, joint ventures are required by applicable mining or hydrocarbon legislation; in other countries, like Angola, joint ventures are not required albeit they are encouraged.[56] The Nigerian national oil corporation NNPC operates under joint venture arrangements with international oil majors like Shell and Exxon Mobil.[57]

Joint ventures may be partnerships or corporations and, in some countries like China and the Former Soviet Union, it is even possible to have a joint venture as a business form of its own right.[58] In the business world, a joint venture is an agreement between two or more distinct and separate parent corporations to engage in a partnership to pool complementary resources for a common goal.[59] In mining law, however, a joint venture is an 'unincorporated association, formed to carry out exploration and/or development of a specific mineral property or properties located within a specific geographic area of interest.'[60] In FDI law and in this dissertation, the concept of joint ventures subsumes

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[54] *Id.*
[55] Hugh Brooke Macdonald, *Structuring Mineral Exploration and Development Joint Ventures in Latin America – An Overview or How to Avoid Putting Square Peg into a Round Hole*, 17-SPG INT'L L. PRACTICUM 72 (2004); Michael E. Hooton, *Structuring and Negotiating International Joint Ventures*, 27 CREIGHTON L. REV. 1013, 1015 (1994).
[56] *Angola: Do you Recognize this Nation?* FOREIGN POL'Y, Special Supplement, May/Jun. 2009, at 11.
[57] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 14.
[58] Andrzej Burzynski, *The Concept of a Joint Venture and the Legal Context for Joint Ventures in CMEA Countries*, 5 FLORIDA INT'L L.J. 183 (1990); Michael E. Hooton, *supra* note 55, at 1013.
[59] Hugh Brooke Macdonald, *supra* note 55, at 73.
[60] *Id.*

an association between a foreign investor and a local corporation or other juristic person.

Joint ventures fall in any of two categories: Equity joint venture or contractual joint ventures. Depending on its ownership structure, an equity joint venture may itself take on several forms. Governed by corporate law, equity joint ventures are the most common type of joint ventures between foreign investors and developing countries. It is incidentally the joint venture type that most R4I contracts set up. A contractual joint venture, on the other hand, does not provide for a joint corporation or partnership. They are designed to attract capital, equipment, industrial property, know-how and other resources that the local partner lacks. Contractual joint ventures are increasingly used in the extractive industries where the host country wants to retain control over natural resources.

Various joint venture structures are possible in R4I contracts. A multinational corporation may find a local partner and form a joint venture, or invite the local partner to form a joint venture in order to make an acquisition and operate the business/acquisition together.[61] Parties may also identify a core business and organize a business form for the core business; parties may form a network of contracts to allow third parties to supply goods and services to the joint venture; or they may negotiate a management agreement whereby the multinational corporation supplies various management services to an existing company.[62] Finally, after the parties identify a business relationship, the multinational corporation invests between 5 and 10 percent in

[61] Michael E. Hooton, *supra* note 55, at 1017.
[62] *Id.* at 1017-1018.

the local partner or a newly formed company and then negotiates an option agreement to buy up to 51 percent.[63]

Whatever their category and structure, joint ventures created by R4I contracts are owned by Chinese investors. In the case of Guinea, CIF owns 75 percent of the joint venture ADC;[64] in the case of the DRC, the consortium of Chinese corporations own 68 percent of Sicomines.[65] Joint ventures share a number of salient characteristics, the most important of which include common ownership of pooled assets; several liability, disclaimer of corporate personality or/and advantages; appointment of the majority partner as manager of the venture; right to receive and market a proportionate share of the mineral production; separate accounting of capital contributions, property, profit and loss; and partnership flow-throw tax treatment.[66]

In a joint venture, the one party is putting on the table what the other does not. The contributions of each party are complementary yet do not carry the same economic value. Unsurprisingly, therefore, parties have equal interests in a joint venture as they differ in terms of corporate culture, financial wherewithal or skill capabilities.[67] Contributions by each party can be summarized as follows:

Table 24: Contributions of parties to a joint venture

Foreign investors	**Host countries**
Machinery	Land
Financial resources	Industrial sites and production facilities

[63] *Id.* 1018.
[64] Guinean Framework Agreement art. 2.3(b).
[65] DRC Framework Agreement art. 3.4.
[66] Hugh Brooke Macdonald, *supra* note 55, at 73-74.
[67] Michael E. Hooton, *supra* note 55, at 1016.

Intellectual property (patents, industrial property)	Intangible contributions - (environmental knowledge, government contacts, supplier political and social goodwill)
Technical skills (marketing and production techniques)	Trained personnel
Specialized personnel	

The contributions that each party makes to the joint venture are indicative of the advantages of forming a joint venture.

3.2.1. Sicomines

As just shown, the resource side of R4I contracts entails the creation of a joint venture between a national mining or oil corporation and a Chinese state-owned corporation. The DRC and Guinean framework agreements expressly create such joint ventures. Other framework agreements may contain similar provisions but most are strictly confidential.

The DRC Framework Agreement states that the Chinese and Congolese parties will realize their cooperation by the constitution of a mining joint venture to which the Congolese party will cede through its national mining company, *Générale des Carrières et des Mines* (Gécamines), the mining rights and titles that are the object of the cooperation.[68] The joint venture between the DRC (through Gécamines) and China (through the consortium of Chinese state-owned corporations) has been incorporated in terms of Congolese corporate laws.[69] The name of the joint venture is *Sino-Congolaise des Mines* (Sicomines). The Congolese state participates in Sicomines through Gécamines whereas the Chinese state participates in the joint venture through a

[68] DRC Framework Agreement art. 3.1.
[69] *See* DRC Framework Agreement art. 3.2.

consortium of state-owned corporations, consisting of China Railway and Engineering Corporation (CREC) and SinoHydro.

Sicomines will have to generate profits for the reimbursement of not only the mining investments but also the infrastructure investments made by China.[70] In order to guarantee that the Chinese parties recover their investments in the mining and infrastructure projects, the parties agreed that the Chinese parties will have a 68 percent interest in the joint venture and that Gécamines will own the remaining 32 percent.[71] This ownership structure may appear unfairly disproportionate to some analysts, but analysts should not lose sight of the fact that this formula aims to facilitate the recoupment of costs sunk by the Chinese investors into the project.

3.2.2. African Development Corporation

The Guinean Framework Agreement is, as has already been shown, a variation on the basic structure of R4I contracts. Likewise, the joint venture that it establishes is different from Sicomines and other joint ventures created by other R4I contracts. The Guinean Framework Agreement declares that the principal goal of the cooperation between the Chinese investors and the Guinean state is to invest, primarily in energy; water; electricity; transport by road, rails and air; ports and airports; housing; extraction of aluminium; and in any other sectors of common interest as identified by the parties.[72]

The name of the joint venture between the Guinean state and the Chinese parties is African Development Corporation (ADC). Unlike Sicomines, the joint venture ADC is

[70] DRC Framework Agreement art. 3.3.
[71] DRC Framework Agreement 3.4.
[72] Guinean Framework Agreement art. 2.2.

not a standard corporation but a holding company, that is, a corporation with controlling interests in a number of subsidiary corporations. The Guinean state participates in the joint venture through its national mining corporation, *Compagnie Nationale Minière* (CNM), whereas the Chinese parties participate in the venture through a consortium of private investors, consisting of CIF and China Sonangol International (CSI). The Chinese investors are neither entirely Chinese nor entirely private since one of the partners in CSI, *Sociedade Nacional de Combustíveis de Angola* (Sonangol), is an Angolan parastatal and Angola's national oil company.[73]

The Framework Agreement directs the parties to enter into a shareholders' agreement and prescribe the following general terms and conditions for the shareholders' agreement.[74] First, the shareholders' agreement will constitute the joint venture in terms of Singaporean laws.[75] Second, CIF will own 75 percent interest in the joint venture and the Guinean state will own 10 percent.[76]

[73] *See* Sonangol E.P., http://www.sonangol.co.ao/wps/portal/ep (last visited Feb. 16, 2010).
[74] Guinean Framework Agreement art. 2.3.
[75] Guinean Framework Agreement art. 2.3(a).
[76] Guinean Framework Agreement art. 2.3(b).

3.3. Natural resources

'Resource' refers to a country's means of supporting itself, as represented by its minerals, land and other assets.[77] The resource side of R4I contracts entails the utilization of natural resources as a medium of exchange. The DRC Framework Agreement contains a list of mineral deposits whose rights have been granted to Chinese state-owned corporations in terms of the Agreement,[78] as shown in the Table below. In the case of Sino-Ghanaian R4I contract, while it is known that the Ghana Marketing Board, a state-owned institution, will export cocoa products to China, it is nonetheless not known how much cocoa products the Board will have to export.[79]

It is noteworthy that R4I contracts are only possible where the state owns the resources to be exchanged. The state bargaining for a R4I contract must be able to encumber and transfer mining or/and oil rights. Where the state has ceded mining or oil rights to private firms or where the rights are otherwise privately owned, the state cannot exchange the rights to those resources in a R4I agreement.

Table 25: Copper and cobalt granted by the DRC to Chinese corporations

Types of reserves	**Deposits**	**Copper (in tons)**	**Cobalt (in tons)**
Proved reserves	Dima basin	1,933,160	49,883
	Dikuluwe	2,248,673	42,037
	Dima juncture	334,408	19,776
	West Mashamba	1,593,512	163,592
	Mashamba basin	703,617	151,331
	Total	6,813,370	426,619
Probable and possible Reserves	Dilukuwe	100,000	
	West Mashamba	50,000	

[77] OXFORD DICTIONARY OF CURRENT ENGLISH 772 (4th ed. 2006), sv 'resource'.
[78] DRC Framework Agreement Annex A.
[79] Phone interview with Kwabena Nyarko Otoo, *supra* note 53.

	Dima basin	2,000,000	
	Mashamba basin	300,000	
	Synclinal Dik Hill D	1,352,000	
	Total	3,802,700	200,000[80]
Total		10,616,070	626,619

In the reported instances of R4I contracts, oil (Congo-Brazzaville, Sudan, Angola, Nigeria and Ghana), bauxite (Guinea), iron (Gabon), chromium (Zimbabwe), cocoa (Ghana), copper and cobalt (DRC) have been so utilized. What that list of resources reveals is that R4I contracts not only exchange minerals and hydrocarbons but also agricultural products for national infrastructure. The types of natural resources traded in terms of R4I contracts imply that several countries in Africa that have not yet signed any R4I contracts with China are perfect candidates for signature of R4I contracts. Below is a list of potential candidates in Africa and the comparative advantage they enjoy with respect to the natural resources they possess under their soil.

Table 26: List of candidates for R4I contracts in Africa

	country	**natural resources**
1	Algeria	natural gas, gas and oil
2	Angola	Oil
3	Botswana	Diamonds
4	Cameroon	oil (modest amount) and cocoa
5	Chad	Oil
6	DRC	diamonds, gold, copper, cobalt, coltan, zinc
7	Congo-Brazzaville	Oil
8	Côte d'Ivoire	oil, gas, palm oil, coffee and cocoa
9	Equatorial Guinea	Oil
10	Gabon	oil, gold, manganese
11	Ghana	oil, gold and cocoa
12	Guinea	Bauxite
13	Liberia	diamonds, timber, rubber
14	Libya	oil and gas
15	Mali	gold and cotton
16	Mauritania	Iron
17	Morocco	Phosphate
18	Namibia	diamond, uranium, copper, lead, zinc, tin, silver, tungsten, and fish
19	Niger	Uranium
20	Nigeria	Oil

[80] Cobalt was not evaluated in terms of probable and possible reserves.

21	Sierra Leone	Diamonds
22	South Africa	platinum, gold and chromium
23	Sudan	Oil
24	Tanzania	Gold
25	Togo	phosphate, coffee, cotton and cocoa
26	Tunisia	phosphate and iron
27	Uganda	coffee and oil
28	Zambia	Copper
29	Zimbabwe	coal, gold, platinum, copper, nickel, tin, clay

Source: *CIA, World Factbook* (2010)

The above table shows both the geological and, in some cases, the agricultural potential of selected countries in Africa, but the emphasis is on minerals and hydrocarbons, and on countries generously endowed with them. More specifically, this dissertation's emphasis is on PIRSA, namely Zimbabwe, Sudan, Chad, the DRC, Guinea, Côte d'Ivoire, Niger, Cameroon and Congo-Brazzaville. As said in Chapter 5, the key findings and R4I model proposed in this dissertation primarily apply to PIRSA. Moreover, it does not follow from the fact that there is at a minimum 2 dozen potential African countries for R4I contracts that Chinese FDI in the mining and construction sectors of those countries will be complementary in all those countries. There may be cases and countries where Chinese FDI would be competitive, and would indirectly divert resources away from the economy and compete with infant industries.[81]

3.4. Incentives

Incentives can be defined as any measurable economic advantage afforded to specific enterprises or categories of enterprise by or at the direction of a government, in order to encourage them to behave in a certain manner.[82] They are instruments that host governments use to attract FDI, to steer it into favored industries or regions, or to

[81] Andrea Goldstein *et al.*, *supra* Ch. 3 note 253, at 28.
[82] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), INCENTIVES AND FOREIGN DIRECT INVESTMENT 3 (United Nations Publications 1996). [hereinafter UNCTAD, INCENTIVES]

influence the character of an FDI, for instance where a certain type of FDI is needed.[83] They include measures specifically designed either to increase the internal rate of return of a specific FDI project or to redistribute its risks.[84]

A few rationales justify the use of FDI incentives, with the overarching rationale being to rectify market failures. The first rationale is to correct market failures to reflect the wider benefits arising from the positive externalities of production.[85] A second rationale is to correct market failures to reflect the gains that may accrue over time from decreasing unit costs and skills transfer.[86] Third, incentives compensate foreign investors for lost return because of other government interventions. Finally, incentives encourage foreign investors to shoulder certain public costs that the host government cannot carry because it does not have the institutional capacity to do so.[87] Despite these noble and laudable market-correction rationales, FDI incentives can yield unintended results. For instance, they can distort production structures, favor large foreign investors over small ones, and entail financial and administrative costs.[88]

The two main types of incentives are fiscal and financial, but this section focuses only on fiscal incentives as R4I contracts feature them. The main aim of fiscal incentives is to lighten the tax burden of foreign investors.[89] A common type of fiscal incentive is profit-based. This type of fiscal incentive is one that the Guinean and DRC framework

[83] *Id.* at 1.
[84] *Id.* at 3.
[85] *Id.* at 9.
[86] *Id.* at 10.
[87] *Id.* at 11.
[88] *Id.* at 11-12.
[89] *Id.* at 4.

agreements utilize. In the Guinean Framework, Guinea undertakes to grant to the joint venture ADC applicable exonerations in terms of Guinean laws and regulations.[90]

In the DRC Agreement, the DRC grants to the consortium of Chinese investors all the advantages relating to tax, customs and excise, and foreign exchange, applicable in terms of Congolese laws and regulations.[91] The DRC grants to the consortium, during the first two phases of the three-phase amortization of China's FDI, total exoneration from taxes (direct or indirect), customs and excises, royalties, internal taxes or export/import taxes, and those relating to the extractive activities and the development of infrastructure.[92] During those first two phases, all relevant and applicable taxes will be treated and accounted for as expenses for the infrastructural works to be carried out in terms of the Agreement.[93]

3.5. Credit enhancement strategies

Credit enhancement aims to (1) improve the most severe equity and lender risks in a triage of project finance risks identified and (2) distribute risks among project participants.[94] Credit enhancement can take several forms, including direct guarantees by the project sponsors or the project participants, guarantees by third parties not taking any active part in the project, contingent guarantees and 'moral obligations' of the project participants.[95] Parties to R4I contracts have used myriad credit enhancement strategies, especially guaranties, sovereign or otherwise. Credit enhancement is a tool

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[90] Guinean Framework Agreement art. 2.3.(c)(f).
[91] DRC Framework Agreement art. 14.1.1.
[92] DRC Framework Agreement art. 14.2.1.
[93] DRC Framework Agreement art. 14.2.4.
[94] SCOTT L. HOFFMAN, *supra* Ch. 4 note 149, at 382.
[95] *Id.*

of choice in minimizing investment risks and blunting certain facets of the resource curse.

3.5.1. Guarantees

Guarantees are the risk-shifting mechanism *par excellence*. In order to control changes to their risk profiles, lenders such China Eximbank will want to maintain control over the project joint venture's power to change project plans, project contracts, capital expenditure program or debt program without the lenders' consent.[96] Guarantees and undertakings from the project joint ventures or participants serve to enable lenders to maintain control on the risk profile underlying the project. Lenders use these representations, guarantees and undertakings as bases to claim damages and as events of defaults, triggering the lenders' decision to suspend drawdown, terminate, demand repayment and enforce security.[97]

Guarantees are a mechanism that permits entities to invest capital without becoming involved directly in a project by shifting risks to the entities.[98] The DRC Framework Agreement contains a number of guarantees whereby the DRC guarantees, among other things, that mining titles and rights awarded to the joint venture Sicomines will be free of all defects;[99] and that mineral deposits whose rights have been ceded to Sicomines contain mining reserves envisaged by the parties to the Agreement.[100]

Important guarantees in the Agreement come in the form of guarantees against political risks. The DRC guarantees that, one year after the approval of the Agreement by the

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[96] JEFFREY DELMON, *supra* Ch. 1 note 56, at 83.
[97] *Id.* at 84.
[98] SCOTT L. HOFFMAN, *supra* Ch. 4 note 149, at 383.
[99] DRC Framework Agreement art. 13.1.
[100] DRC Framework Agreement art. 13.2.

Chinese government, it commits to obtaining from the Congolese parliament the enactment of legislation securing the financial regime (i.e. tax, customs and excise, and foreign exchange) applicable to the DRC-China joint project because of its specificity.[101] The DRC also makes the commitment that it will in no circumstances appropriate, nationalize and expropriate, directly or indirectly, the mining joint venture or the latter's property.[102] It then promises to respect the BIT between China and the DRC signed on 18 December 1997.[103] Finally, the DRC guarantees the security of China's mining and infrastructure investments and the reimbursement of the infrastructure to be built in accordance with the Framework Agreement.[104]

3.5.2. Insurance guarantees

Another guarantee found in the DRC Framework Agreement is that, if the consortium of Chinese investors or its affiliates decide to take out at their own expenses investment insurance from institutions like MIGA to protect themselves against political risks, the DRC will grant recognition if subscription to insurance schemes requires recognition from the host state.[105]

Insurance schemes, national and multilateral, are common in FDI law. Three options are available to insure against the risks of a project. The first option is the guarantee or insurance against political risks ('political risk cover'), thus leaving private sector lenders with only the commercial risks on the project.[106] MIGA only offers political risk cover. The second option is the guarantee or insurance that covers all risks, both

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[101] DRC Framework Agreement art. 15.1.
[102] DRC Framework Agreement art. 15.2.
[103] DRC Framework Agreement art. 15.3.
[104] DRC Framework Agreement art. 15.6.
[105] DRC Framework Agreement art. 15.4.
[106] E.R. YESCOMBE, PRINCIPLES OF PROJECT FINANCE 217 (Academic Press 2002).

political and commercial ('full cover'), thus leaving lenders to provide finance with no risk on the project.[107] A third option is direct loans to the project company from public sector lenders, national or multi-national, prepared to accept political risks that private sector lenders are not willing to take.[108] These mitigation options are offered and provided by export credits, 'untied' financing, insurance from IFI such as the World Bank, and the private insurance market.[109] For example, China has taken out a policy under a national insurance scheme, China Export & Credit Insurance Corporation (Sinosure), to insure against political risks in the construction of the Bui hydroelectric power dam in Ghana.[110]

3.5.3. Undertakings

Undertakings and representations are another way of allowing lenders to control the risk profile of projects and shifting risks on the project. Project joint ventures typically undertake to comply with contractual and legal obligations, refrain from exercising certain rights and powers, and take out and maintain insurances.[111] In the DRC Framework Agreement, the Congolese state makes a series of representations as to the feasibility and profitability of the mining project.[112]

3.5.4. Sovereign guarantees

Sovereign guarantees are a financial tool used in some R4I contracts. They are a form of government credit enhancement technique whereby the host government guarantees to the project corporation that, should certain events occur or not occur, it will

[107] *Id.*
[108] *Id.*
[109] *Id.* at 127-128.
[110] *See* Kwadwo Baah-Wiredu, *supra* note 37.
[111] JEFFREY DELMON, *supra* Ch. 1 note 56, at 83.
[112] *See* DRC Framework Agreement art. 13.3.

compensate the project corporation.[113] The scope of sovereign guarantees is a question of fact answered by the individual circumstances and the risk matrix of a project.[114]

A good argument could be made that, insofar as the exploitation of natural resources does not produce sufficient returns, sovereign guarantees provide additional security.[115] In that sense, natural resources in R4I contracts would be more payment than security.[116] Indeed, the R4I contract terms that may resemble collateral-secured transactions are sovereign guarantees provided by host governments that if certain events do or do not occur, the host government will provide China with more natural resources. Sovereign guarantees and collaterals are legally different, although the *Building Bridges* report – to mention but one example of a common trend – does not differentiate between the two. The conflation between sovereign guarantees and collaterals may be due to the fact that the two are comparable from an economic perspective, albeit legally distinguishable.[117]

Some experts believe that sovereign guarantees made without the involvement of the World Bank are basically worthless,[118] but this sort of observations assume that the economic exchange is between a host country and a private country. Such observations would not hold when the exchange is between two states, as in the case of most R4I contracts, because state-to-state agreements benefit from undeniably stronger political will and support. R4I contracts are very expensive and costly; and, without political

[113] SCOTT L. HOFFMAN, *supra* Ch. 4 note 149, at 416.
[114] *Id.*
[115] This was an argument made by Nils Tcheyan (phone interview with Nils Tcheyan, *supra* Ch. 3 note 237).
[116] *Id.*
[117] *See* R4I Contract Model art. 10.3.
[118] *See* SCOTT L. HOFFMAN, *supra* Ch. 4 note 149, at 417 (stating that some question whether sovereign guarantees are of any benefit in a project financing if the World Bank is not involved in the project).

will, participants to R4I contractual arrangements will not take any pain implementing them.

The DRC Framework Agreement provides a clear example of a sovereign guarantee in a R4I contract. The DRC Framework Agreement stipulates that the reimbursement guarantee is insured by the DRC, which commits itself within the framework of the agreement to grant to the consortium of Chinese corporations additional mining concessions or other resources in the event that revenues expected from the mining joint venture turned out to be insufficient for the reimbursement of mining and infrastructure investments.[119]

3.6. Sovereign guarantees and debt sustainability

The sovereign guarantee in the DRC Framework Agreement is an instructive case for other heavily indebted resource rich countries that mull over signing R4I contracts. When the DRC announced its mega-contract with China the reaction of the IMF and the Paris Club of creditors was almost immediate. The IMF threatened not to relieve the DRC of its external debt, estimated to be more than 12 billion US dollars. The IMF argued that the DRC's contract with China, which was then worth 9 billion US dollars, would result in an explosive increase in the DRC's external debt,[120] making it unsustainable. The Chinese investments would considerably increase the DRC's debt burden with little certainty that the DRC would be able to repay the debt because most fragile states like the DRC have weak economies.[121]

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[119] DRC Framework Agreement art. 10.3.
[120] *See* William Wallis, *Chinese Deal Threatens IMF Aid for Congo*, FIN. TIMES (U.K.), May 14, 2009; *Chinese Minerals Deal Blocking Congo's IMF Debt Relief,* VOA NEWS (U.S.), May 26, 2009, http://www1.voanews.com/english/news/a-13-2009-05-26-voa26-68802437.html.
[121] Phone interview with Nils Tcheyan, *supra* Ch. 3 note 237.

Yet the concept of debt sustainability is as debatable as the argument that R4I contracts augment a host country's debt burden because uncertainty reigns over the most appropriate measure of a country's insolvency.[122] Another problem is the contrast between Chinese flexible financial models and the models employed by the IMF, which calculate a country's debt on the basis of the value of the contract upon signature instead of basing such calculations on the money actually spent.[123]

For their part, the Congolese government and the Chinese Ambassador to the DRC vehemently opposed the idea that the R4I contract increased the DRC's external debt. They argued that there was no additional debt burden on the DRC's shoulders as the infrastructure loans were guaranteed by mineral deposits, verified by feasibility studies.[124] Stated differently, the nature of the mining contract as a resource-for-infrastructure arrangement ensured that the infrastructure loans would not add to the host country's external debt.

Eventually, however, after several months of wrangling and tremendous pressure from the IMF and the Paris Club on the DRC to renounce its contract with China, the DRC adopted a middle course and accepted to renegotiate the contract with China so as to make it compatible with the IMF's relief program. The DRC adjusted the terms of the R4I contract by removing the sovereign guarantee in the 3 billion US dollars mining project and scaling the amount of infrastructure loans from 6 down to 3 billion US

[122] Nouriel Roubini, Debt Sustainability: How to Assess Whether a Country is Insolvent (December 20, 2001), http://pages.stern.nyu.edu/~nroubini/papers/debtsustainability.pdf
[123] Phone interview with Deborah Bräutigam, *supra* Ch. 3 note 238; *see* VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 15 (stating that it was common practice in the reporting of official development assistance financing that all the values reported relate to financing commitments rather than actual disbursements).
[124] *See*, *Shi Shu Xinhua, Ambassadeur de Chine en RDC, Parle des Contrats Chinois,* LE PALMARÈS (Dém. Rep. Congo), Jan. 14, 2010.

dollars, thereby reducing the overall value of the R4I contract from 9 to 6 billion US dollars.[125]

3.7. Collateral

In order to protect themselves against counterparty credit defaults, lenders often take security against the assets of the borrower. Lenders liquidate the security to satisfy the amount of a loan that they granted in the event of the borrower failing to repay the loan. With specific reference to R4I contracts, the existing scholarship does not clearly differentiate between contracts where natural resources serve as collateral – that is security for the repayment of the loan – and contracts where they are a mode of payment. The World Bank report *Building Bridges* does mention that natural resources are used to secure finance for the construction of hydro-electric power dams in Congo-Brazzaville and Ghana.[126] However, this statement entangles collateral-secured finance and exchange for natural resources for national infrastructure.

In fact, the available body of evidence on R4I contracts does not back up statements that natural resources are collaterals as a matter of law. Cabinet resolutions and/or framework agreements in the Angolan, Guinean and DRC cases do not present natural resources as protection against the risk that the host governments will default on the infrastructure loans. In the Sino-Congolese R4I contract, it is the joint venture between the DRC and China that constitutes collateral and not the mineral resources *per se.*[127]

[125] *See* Barney Jopson & William Wallis, *Congo Cuts Back Aid Deal with China*, FIN. TIMES (U.K.), Nov. 11, 2009, http://www.ft.com/cms/s/0/f0a44cb6-ceef-11de-8a4b-00144feabdc0.html?catid=21&SID=google.
[126] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 21.
[127] DRC Framework Agreement art. 9.3.

Some scholars have argued that the distinction between natural resources as payment and protection is superfluous because natural resources in R4I contracts essentially perform both functions.[128] These arguments are incorrect. Not only do they misrepresent the role of natural resources and the common intention of parties in R4I contractual arrangements, but they also fail to perceive the difference of nature of those two concepts in contract law. The payment of national infrastructure with natural resources is the principal obligation in the commercial sale transaction that is a R4I covenant, non-compliance with which is a breach of contract, calling for a remedy. Conversely, the use of natural resources as security is a contract clause that provides lenders with a remedy, that is foreclosure, if borrowers default on loans provided by lenders.

Breach of payment and security provisions calls for different remedies; and the difference between these remedies is of great significance. The breach of a payment provision would attract a judicial or arbitral order to pay damages whereas the breach of a security provision would attract an order for damages or alternatively an order to foreclose on the collateral provided by the debtor. In a sale transaction, foreclosure is tantamount to a forced sale, thus an order for specific performance, which is an exceptional contractual remedy.[129] This remedy would be extremely hard to enforce in the sale of natural resources by a sovereign country because, with very few exceptions, states own and exercise permanent sovereignty over natural resources, which means that a court order cannot in fact and in law force them to sell their resources.[130]

[128] Phone interview with Deborah Bräutigam, *supra* Ch. 3 note 238; phone interview with Lucy Corkin, Former Projects Director, Centre for Chinese Studies, University of Stellenbosch (Jan. 22, 2010).
[129] *See* Alan Schwartz, *The Case for Specific Performance*, 89 YALE L.J. 271 (1979).
[130] It should be noted that the same sovereignty over natural resources subsumes the right of a country to sell its minerals and hydrocarbons.

Nothing, however, prevents courts from impounding property owned by a host state if the latter breaches a promise to sell natural resources to an investor.

The foremost significance of the distinction between payment and security provisions is the corresponding distinction between barters and asset-based project finance, which in turn determines the question as to whether infrastructure loans add to a host country's debt burden. States which are subject to the IMF austerity measures keeping them from – among other things – buying foreign goods and services may wish to avoid increasing their debt burden by resorting to cashless transactions.[131] If a transaction is a barter, debt does not increase; if on the other hand the transaction is not a barter, debt is likely to increase. In the dispute that pitted the IMF and the Paris Club against the DRC and China over the R4I contract signed in the DRC, the DRC and China have in essence argued that if infrastructure loans are part of a resource-for-infrastructure they will not burden the host country. Thus, to the extent that R4I contracts bear a likeness to barters, the claim may be made that they do not add to a host country's debt.

3.8. Reimbursement of infrastructure investments

An essential function of natural resources in R4I contracts is to reimburse or pay for China's infrastructure investments. From the fact that the amount of infrastructure investments determines the amount of reimbursement it follows that the larger the infrastructure investments the higher the amount of natural resources allocated to the servicing of the infrastructure loans. Large infrastructure loans also imply longer amortization periods and riskier investments.

[131] Amanda J. Perry, *supra* note 20, at 8.

Chinese investors have resorted to a wide array of financial models to ensure an efficient amortization of their massive investments. In this respect, China Eximbank plays a pivotal role. Financial models and ratios can quantify many aspects of a project joint venture, such as its business, operations and financial position.[132]

3.8.1. Debt-equity ratios

One of the financial tools that Chinese investors make use of is debt-equity ratios. In designing the capital structure of a project corporation or joint venture the interests of lenders and investors often conflict. In traditional project finance, lenders' interests are to decrease the portion of debt in the capital structure and to increase the level of equity in order to ensure shareholders' commitment to the project, push up the net value of project assets, and provide lenders greater security flowing from the increased capital injection into the project.[133] By contrast, shareholders would like to decrease equity and see a corresponding increase in debt so as to expand the return on their equity investment.[134]

The idiosyncrasy of R4I contracts is that lenders and the majority shareholders would all be Chinese state-owned corporations such that the dynamics described above do not apply and that the interests of lenders and majority shareholders in R4I schemes converge. During the phase of the reimbursement of China's mining investments, the capital structure of Sicomines in the DRC is 30 percent of debt in the form of shareholders' loan with no interest to Sicomines and the remaining 70 percent is equity.[135]

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[132] JEFFREY DELMON, *supra* Ch. 1 note 56, at 55.
[133] *Id.* at 56.
[134] *Id.*
[135] DRC Framework Agreement art. 12.

3.8.2. Internal rate of return

To understand what the internal rate of return (IRR) is, unpacking the concept of the rate of return or return on investment is apposite. The rate of return, or the return on investment (ROI), or simply the return, is 'the ratio of money gained or lost on an investment relative to the amount of money invested, usually on an annual basis.'[136] That rate includes return on debt and equity. The IRR on the other hand is the discount rate that results in a net present value (NPV) of zero of revenues over the project period, which shows the annualized effective compounded[137] rate of return that can be earned on the invested capital.[138] This definition means that the IRR is the interest rate or discount rate at which foreign investors would recoup the entire cost of their investments over the project period. In the DRC Framework Agreement, the IRR is 19 percent, a rate reflecting the large amounts invested in the mining and infrastructure projects in the DRC.

3.8.3. Interest rates

Another financial tool used by Chinese investors is interest rates. An interest rate or discount rate is the compensation for the risk of default. Any reduction or increase in the risk of default will reduce or increase the interest.[139] Interest rates or discount rates are determined by calculating the return on investment had the investment been made in the next best alternative project.[140] In other words, opportunity costs determine interest rates.

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[136] JEFFREY DELMON, *supra* Ch. 1 note 56, at 59.
[137] A compound interest is an interest added to the principal so that the compounded interest itself earns an interest. 'Compounding' refers to the addition of interest to principal.
[138] JEFFREY DELMON, *supra* Ch. 1 note 56, at 59.
[139] *See* RICHARD A. POSNER, *supra* Ch. 1 note 20, at 425ff.
[140] JONATHAN R. MACEY, *supra* Ch. 2 note 24, at 10-11.

China Eximbank typically signs a loan agreement with a host country in Africa pursuant to an intergovernmental framework agreement but the terms of the loan agreements are secret in the majority of R4I contracts.[141] The Sino-Angolan R4I contract provides for a concessional interest rate, London Inter-Bank Offered Rate (LIBOR) + 1.5%, with a grace period of up to 3 years.[142] The World Bank estimates that, in addition to grants, the interest rates offered by China Eximbank across all its products range from 1 to 2 percent.[143] However, the DRC Framework Agreement derogates from this standard practice by stipulating that reimbursement of China's equity investments in the joint venture Sicomines will be at an annual interest rate of 6.1 percent.[144] This derogation is most probably a signal that the risk of default by the DRC in reimbursing China's investments in the joint mining project is above average.

3.8.4. Valuation

One important issue that arises with respect to R4I contracts is the valuation of natural resources. The question is whether the resources are under-valued or over-valued.[145] The World Bank states that the value of traded natural resources is slightly discounted.[146] In the case of Angola, Nigeria, Guinea, Gabon and the DRC, the value of oil, bauxite, iron, copper and cobalt is determined by the spot market. Until 2002, Angola would repay its commercial oil-backed loans at fixed barrels-per-day rates,[147] but since 2004 Angola has started using spot market rates for the R4I contract that it signed with China.

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[141] *See* VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 55.
[142] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 47.
[143] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 55.
[144] DRC Framework Agreement art. 12.
[145] Phone interview with Vivien Foster, *supra* Ch. 4 note 163.
[146] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 56.
[147] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 46.

The value of natural resources depends on the implicit price agreed upon for the natural resource traded and its relation to current and future market prices. The wider experience with R4I contracts is that the price of the resources is not set over the project period, but that the value of the resources rises and falls as commodities markets rally and tumble.[148] The terms of R4I contracts are adjusted accordingly. Rising commodity prices do not lead to an increase in income but to an acceleration of loan repayment, and vice versa.[149] Conversely, falling commodity prices will probably prompt parties to suspend payment of the loan and wait for economically viable price levels.[150] While these financial terms are an efficient way of fixing the economic value of commodities it nonetheless leaves resource rich countries, including PIRSA, at the mercy of price fluctuations in international commodities markets. The risk of price volatility in commodities markets is high given that those markets are inherently volatile.

3.8.5. Amortization period

Amortization periods vary. While the Sino-Angolan R4I contract stipulates that the Chinese loan is payable over 12 years,[151] the 2010 Sino-Ghanaian R4I contract stipulates a repayment period over 20 years[152] and the DRC-China R4I contract stipulates a period of 25 years.[153] The DRC Framework Agreement arranges the reimbursement of the mining and infrastructure investments in three periods.[154] The

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[148] *See* VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 56.
[149] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 46.
[150] Interview with Jean Paul Kimbulu Kandolo, *supra* Ch. 5 note 34.
[151] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 47.
[152] Ghana Government, *Funds for Railway Development*, Official Portal, Sept. 22, 2010, http://www.ghana.gov.gh/index.php?option=com_content&view=article&id=3389:funds-for-railway-development-&catid=96:top-headlines.
[153] DRC Framework Agreement art. 13.3.4.
[154] DRC Framework Agreement art. 12.

first period will reimburse the mining investments and the second period will reimburse the first half of infrastructure investments. The third and final period will be the commercial period, during which the DRC will directly share in the profits and will no longer have to apply them to the reimbursement of the mining and infrastructure investments. If Sicomines has not reimbursed the loans and the interest thereon 25 years after its creation, the DRC government undertakes to reimburse Chinese investors by any other means.[155]

During the first period, Sicomines is to allocate all of its profits to the complete reimbursement of mining investments, including the payment of interest rates, of the consortium of Chinese corporations in the project. The DRC Framework Agreement obliges Sicomines to apply 66 percent of its profits to the reimbursement of the first half of the infrastructure investments for as long as the total amount of the reimbursement does not exceed 3 billion US dollars, the latter being the amount of the principal. In the commercial phase of the amortization, partners in Sicomines will share profits among themselves according to their contribution to the joint venture's capital.

4. Infrastructure side of the agreement

4.1. Valuation and escalating costs

The other leg of R4I contracts is the infrastructure project. The R4I contracts signed in Africa have provided for the construction of a wide variety of infrastructure, like schools, hospitals, bridges, hydroelectric power plants, roads, and railways. Because the value of infrastructural works fixes the amount of natural resources needed to repay the money invested in building infrastructure, a very high level of coordination

[155] DRC Framework Agreement art. 13.3.4.

between the participants in the mining project and their counterparts in the infrastructure project is called for.

The need to coordinate the mining and infrastructure projects makes the organization of R4I arrangements relatively complex.[156] Yet the complexity of organizing and operating a R4I contract does not solely rest on the coordination of the infrastructure and mining twin projects but also on each of the project, especially the infrastructure project. The ownership of natural resources by the state facilitates such coordination.[157]

Another difficulty is the prospect of escalating costs. In the lifetime of an R4I contract and any construction contract, the costs of erecting infrastructure may shoot up for a multitude of causes. To guard against such contingency, parties must place a cap on costs by covenanting that, where costs reach a specified quantitative threshold, the construction contractor must suspend work and consult with the other party on how to resolve the cost issue. This clause allocates the responsibility to take precautions against escalating costs to the foreign investor (i.e. Chinese construction contractors) because it is the superior risk bearer. That is, the foreign investor is in the best position to minimize the probability of escalating costs, the extent of cost increases to the host country or to insure against the residual risk of the loss that cannot be feasibly averted.[158]

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[156] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 55-56.
[157] *Id.* at 58.
[158] On the analytical framework for the superior risk bearer, *see* Richard A. Posner & Andrew M. Rosenfield, *Impossibility and Related Doctrines in Contract Law: An Economic Analysis*, 6 J. LEGAL STUD. 83 (1977).

4.2. Infrastructure versus reconstruction projects

The fact that the R4I contracts signed in the mining sectors of Africa concomitantly provide for the construction of infrastructure does not presuppose that the infrastructure projects are equal or equally significant. A review of the available evidence shows two scales of infrastructure projects. Most R4I contracts target infrastructure investments in mega-projects whereas more recent R4I contracts are in reality ambitious plans for the reconstruction of the entire host country. The dichotomy between mega-projects and national reconstruction plans should not be taken too far because at bottom that dichotomy is more a matter of degree or scale than a difference of kind. Aside from these two scales of resource-for-infrastructure contracts, R4I contracts also serve to diversify the economy of the host country.

The R4I contracts that may be viewed as mega-projects are the Congo River hydro-electric (Imboulou) power dam in Congo-Brazzaville, the El-Gaili (Al Jaily) power plant in Sudan, the gas turbine power plant at Papalanto in Nigeria, the Souapiti hydroelectric power dam in Guinea, new coal mines and three thermal power stations in the Zambezi valley in Zimbabwe, and the Bui hydroelectric power dam in Ghana. Only 4 R4I contracts in Angola, DRC, Guinea and Ghana embody plans for the reconstruction of the entire country. But since the Guinean Framework Agreement does not list the infrastructure projects to be financed by the exploitation of natural resources, the tables below only detail the infrastructure projects envisaged by R4I contracts in Angola, the DRC and Ghana.

4.3. Infrastructure projects in the Sino-Angolan deal

4.3.1. National fiber-optic telecommunication network

On April 3, 2006, the Angolan Cabinet approved 4 infrastructure contracts for the supply, installation and the commissioning of telecommunication equipments as well as their financing within the framework of the credit line extended by China Eximbank for a total value in Kwanzas equivalent to 276,307,189.00 US dollars.[159] The 4 approved contracts or projects refer to 4 corresponding basic telecommunication networks.[160] The first project, worth 74,331,285.00 US dollars, covers the axis Luanda-Malanje-Kuito, using optical fiber and satellite for transmission, and reaches various adjacent localities in the provinces of Luanda, Bengo, Cuanza-Norte, Malanje, Cuanza-Sul, Bié and Moxico, with a total supply of 23,040 lines.[161] The second project, worth 67, 954,756.00 US dollars, spreads over the following axes: Lueala-Negage-Uíge, Chibia-Cahama-Ondjiva, and Benguela-Tchindjenje-Longonjo.[162] Using optical fiber and satellite for transmission, the project reaches various adjacent locations in the provinces of Benguela, Cuanza-Norte, Cunene, Huambo, Uíge and Zaire, with a total supply of 25, 984 lines.[163]

The third project, worth 75,275,357.00 US dollars, refers to the expansion of the metropolitan network of Luanda, with a total supply of 65,232 lines, covering the mid-west and south-east region, by creating circles and systems of harmonizing the entire national network, including a universal system of managing and monitoring the network.[164] For that purpose, the project will create technical bases, taking into account

[159] Resolução No. 27/06, de 3 de Abril de 2006, Diário da República de 26.11.2006. art. 1 (Angl.) [hereinafter Angolan Telecommunication Resolution]
[160] Angolan Telecommunication Resolution art. 2.
[161] Angolan Telecommunication Resolution art. 2(a).
[162] Angolan Telecommunication Resolution art. 2(b).
[163] *Id*.
[164] Angolan Telecommunication Resolution art. 2(c).

the implementation of certain systems, namely an integral data base for the network, the integral management and billing of customers, and a call center of Angola Telecom.[165] The fourth project, worth 58,745,791.00, covers the axis Cuito-Huambo-Lubango, using optical fiber and satellite for transmission, and reaches various adjacent locations in the provinces of Bié, Huambo and Huíla.[166]

4.3.2. National infrastructure contracts

The Angolan Cabinet also approved a host of infrastructure contracts that it signed with Chinese corporations in the context of Angola's national reconstruction program.[167] The implementation of the infrastructure projects covered by the 2 billion US dollars loan from China Eximbank was divided in 2 phases. The first phase of the infrastructure construction comprised of 31 contracts on energy, water, health, education, communication and public works, for 50 projects across the whole nation, valued at 1.1 billion US dollars.[168] By 2007, the first phase was complete.[169] The second phase involved 17 contracts for 52 projects, with some projects carried over from the first phase.[170] The largest project is the rehabilitation of the 371 kilometers road from the capital Luanda to Uíge.[171]

By Cabinet resolution, the Angolan government published a list of these contracts,[172] as shown in the Table below.

[165] *Id.*
[166] Angolan Telecommunication Resolution art. 2(d).
[167] Resolução No. 61/06, de 12 de Julho de 2006, Diário da República de 4.9.2006. art. 1 (Angl.)
[168] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 47.
[169] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 57.
[170] *Id.*
[171] *Id.*
[172] Resolução No. 61/06, de 12 de Julho de 2006, Diário da República de 4.9.2006. art. 1 (Angl.). Annex.

Table 27: Angolan infrastructure contracts with Chinese corporations

Infrastructure projects/contracts	Description
Rehabilitation of the city of Luanda	Rehabilitation of the City of Luanda and five municipalities, namely Kilamba Kiaxi, Rangel, Ingombota, Cazenga and Sambizanga
Rehabilitation of infrastructure in Cazenga-Cariango	Construction of the principal channels and the branches of the drainage system as well as the construction of infrastructure in the municipalities
Construction of a draining system and rehabilitation of infrastructure in Precol and Suroca	Construction of the principal system of rehabilitating the infrastructure in Suroca and Precol.
Construction of a central draining system and rehabilitation on Senado Street of Câmara, Rio Seco and Maianga	Construction of the principal system of ramification (i.e. branches) of infrastructure on Senado Street of Câmara, Rio Seco and Maianga
Distribution project for water supply	Renovation of 300 kilometers of water supply, 300 fountains, 2800 valves, 30 000 meters, 13 pumps and 5 control stations
Construction of 215, 500 houses in 24 cities and 18 provinces	Construction of 215 500 housing units with one total construction area of 31, 436 709m^2
Rehabilitation of the road Luanda-Sumbe-Lobito	Rehabilitation consisting of a total of 497 kilometers of roads, including reconstruction of roads, bridges and ditches
Rehabilitation of the road Malanje-Saurimo and Luena-Dundo	Rehabilitation of roads with a total length of 1,107 kilometers, including reconstruction of roads, bridges and ditches
Rehabilitation of the railway of Luanda	Rehabilitation of railways with a total length of 444 kilometers, including reconstruction of roads, bridges and ditches, and other installations
General rehabilitation of the railway of Benguela	Rehabilitation of railways with a total length of 1,547,2 kilometers, including reconstruction of roads, bridges, ditches and other installations
General rehabilitation of the railway of Moçamedes	Rehabilitation of railways with a total length of 1003,1 kilometers, including reconstruction of roads, bridges, ditches and other installations
New International Airport of Luanda	EPC, preparation, supply and construction contract for a new airport, including 'carport,' cargo areas and other constructions
Studies and technical projects 1. Projects for the building of housing	Project for the construction of 215 000 housing units with a total construction area of 31,436,709 m^2
2. Rehabilitation of infrastructure	Project for the rehabilitation of five public infrastructures
3. General and urban planning of the new City of Luanda	General planning of one new city, including management and investment proposals and urban planning
4. General and urban planning of the administration center of Luanda	General planning of an administration center, including ministerial office buildings, a Supreme Court building, parliament, presidential house, etc.
5. Landscape project for Luanda	Landscape project for the administration center of Luanda

Drawing information from the Angolan Ministry of Finance, the Chatham House report *Thirst for African Oil* lists infrastructure projects by phase and by sector as follows:[173]

Table 28: Projects financed by China Eximbank (phase 1)

Sector	**Number of contracts**	**Total value (in million US dollars)**
Health	9	206,1
Education	8	217,2
Energy and water	8	243,8
Agriculture	3	149,8
Transport	1	13,8
Social communication	1	66,9
Public works	1	211,7
Total	**31**	**1,109.3**

Table 29: Projects financed by China Eximbank (phase 2)

Sector	**Number of contracts**	**Total value (in million US dollars)**
Health	1	43,8
Education	3	229,6
Energy and water	3	144,9
Agriculture	1	54,0
Fisheries	3	266,8
Post	4	276,3
Public works	2	89,5
Total	**17**	**1,104.9**

In May 2007, China Eximbank granted 500 million US dollars to finance 'complementary actions', that is, projects from the first phase that had not been budgeted for.[174] These projects included water and energy networks, water treatment plants, and new telecommunication lines.[175]

[173] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 63.
[174] *Id.* at 47.
[175] *Id.*

Table 30: Complementary actions financed by China Eximbank

Sector	**Total value (in million US dollars)**
Health	159,4
Education	145,6
Energy and water	76,5
Education and health	1,7
Fisheries	40,0
Telecommunications	56,3
Public works	65,5
Total	**545,0**

Source: A Vines *et al., Thirst for African oil: Asian national oil companies in Nigeria and Angola* (2009) 63.

In September 2007, another 2 billion US dollars credit line was extended to Angola by China Eximbank. However, it is not clear whether China and Angola entered into a second R4I contract or whether they used the same R4I contract by simply extending the initial 2 billion US dollars with the same amount. The new credit line will finance an additional 100 projects, including water and energy, with priorities set on education and health by building schools and hospitals throughout the country.[176]

4.4. Infrastructure projects in the Sino-Congolese deal

Just like the Sino-Angolan R4I contract provided for several infrastructure projects aimed at Angola's national reconstruction, so does the R4I contract between the DRC and China cover construction, rehabilitation, and modernization projects nationwide. As was the case with the Sino-Angolan R4I contract, the implementation of the infrastructure projects envisaged by the Sino-Congolese R4I contract is divided in more than one phase. The first phase, which is still ongoing, is valued at 350 million US

[176] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 47-48.

dollars while the second phase, which started in March 30, 2010, is valued at 400 million US dollars.[177] The following is a list of the projects to be implemented within the framework of the R4I contract between the DRC and China.[178]

Table 31: Congolese infrastructure projects with Chinese corporations

Number	Projects	Length (in km)	Description
1	**Railway**		
	Tenke-Kolwezi-Dilolo		Rehabilitation and modernization
	Sakania-Lubumbashi-Kamina-Mwene Ditu-Kananga-Ilebo	1833	Modernization
	Kinshasa-Matadi	365	
2	**Railway**		
	Ilebo-Kinshasa	1015	Construction
3	**Roads**		
	3.1. Tarred roads		Construction
	Kasindi-Beni-Komanda-Niania	520	
	Komanda-Bunia	71	
	Lubumbashi-Kasomeno-Kasenga	207	
	Kasomeno-Pweto	336	
	Likasi-Kolwezi	180	
	Bukavu-Kamanyola	55	
	Moba slip road	462	
	3.2.bridge over the Lualaba river	0,110	Construction
	3.3. Tarred roads		
	Pweto-Kalemie-Fizi	730	Construction
	Fizi-Uvira-Kavinvira	142	
	Bukavu-Goma-Beni	590	
	Niania-Bafwasende-Kisangani	363	
	3.4. Tarred roads		
	Matadi-Boma	135	Rehabilitation
	Uvira-Kamanyola	85	
	Moanda-Banana	9	
	Mbuji Mayi – Mwene Ditu	135	
	3.5. Untarred roads		
	Kananga-Mbuji Mayi-Kasongo-Kindu-	887	Rehabilitation
	Kolwezi-Kasaji-Dilolo	426	
	Dilolo-Sandoa-Kapanga-Kananga	709	

[177] *Programme Sino-Congolais: Quid de l'Évaluation de la 1ère Phase*, RADIO OKAPI (Dem. Rep. Congo), Mar. 30, 2010, http://radiookapi.net/actualite/2010/03/30/programme-sino-congolais-quid-de-l%E2%80%99evaluation-de-la-1ere-phase/
[178] DRC Framework Agreement Annex C.

	Kasaji-Sandoa	139	
	Boma-Moanda-Yema	125	
	Niania-Isiro	232	
	-	220	
4	**Public roads**		
	City of Kinshasa	250	Rehabilitation
	Other cities: Lubumbashi, Bukavu, Kisangani, Kananga, Mbuji Mayi, Goma, Matadi, Bandundu, Mbandaka, Kindu	300	
5	**Airports**		
	Goma airport		
	Bukavu airport		
6	**Hospitals and medical equipment**		
	10 hospitals, each with 150 beds, one In each province		Construction
	21 hospitals, each with 150 beds, one in each Province		
	Hospital in the centre of Kinshasa		Rehabilitation and completion
7	**Energy (electricity)**		
	Kakobola hydroelectric dam (Bandundu)		Construction
	Katende hydroelectric dam (Kasai Occidental)		
	Electric distribution network in Kinshasa		Rehabilitation
	Electric distribution network in Lubumbashi		
8	**Training centers for public works**		Construction and rehabilitation
9	**Housing**		
	2000 houses in Kinshasa		Construction
	3000 houses in provinces		
10	**Health centers**		
	145 health centers equipped with 50 beds, one In each territory		Construction and equipment
11	**2 modern universities**		Construction

As can be clearly seen, the R4I contract between the DRC and China is wide-sweeping. It covers such basic socio-economic infrastructure as railways, roads (tarred and untarred), public roads, bridges, airports, hospitals and medical equipment, electricity or power generation, training centers for public works, housing, health centers and universities.

4.5. The infrastructure projects in the Sino-Ghanaian deals

Ghana is so far the only resource rich country in Africa that signed two R4I agreements with China. The first Ghana-China R4I contract, concluded in 2007, consists in the construction of the Bui dam hydroelectric power project and the second Ghana-China R4I contract, concluded in 2010, is a nation-wide construction project. The Bui dam hydroelectric power project in northwestern Ghana is the single largest Chinese-funded project and by far Ghana's largest foreign investment in Ghana since the construction of the Akosombo hydroelectric power project in the early 1960s.[179] The Bui dam involves in fact the construction of an entire complex. The Bui dam complex will consist of a main dam in the Bui gorge and two smaller saddle dams in the neighboring Banda Hills, a power house and a switchyard, transmission lines from Bui to Kumasi and Kenyasi, access roads in and around the dam site, irrigation systems and the nucleus of a metropolis called 'Bui City'.[180]

The Bui Dam is expected to be completed in February 2013 at the cost of 622 million US dollars.[181] The contract that Ghana and China signed is of the resource-for-infrastructure kind whereby China (through SinoHydro) builds the Bui dam in exchange for Ghana's exports of cocoa products to China. When completed, the dam will have a maximum generation capacity of 400 megawatts and a net average annual energy production of 1000 gigawatt hour per year, a generation capacity that will be crucial in meeting the country's future energy needs.[182] The Bui dam is immensely

[179] Anthony Yaw Baah *et al.*, *Chinese Investments in Ghana*, *in* CHINESE INVESTMENTS IN AFRICA: A LABOUR PERSPECTIVE 85, 98-99 (Anthony Yaw Baah & Herbert Jauch eds. 2009).
[180] Bui Power Authority, *Background of the Bui Project*, http://www.buipowerauthority.com/bg_bui_project.htm; Anthony Yaw Baah *et al.*, *Chinese Investments in Ghana*, *supra* note 179, at 98.
[181] Bui Power Authority, *Background of the Bui Project*, *supra* note 180.
[182] *Id.*

significant to Ghana's economy as it is envisaged that it will help propel the country's economic growth towards middle income status by 2015.[183]

In September 2010, Ghana announced the signing of a 10.4 billion R4I contract with China Eximbank on the sidelines of an official visit of Ghana President John Atta Mills to China. This R4I contract, the largest by dollar value, is of the Sino-Angolan sort because it is preoccupied with infrastructure development on a national scale and in various sectors. It covers the development of a road and railway system from Kumasi to Paga, Ghana's eastern corridor roads network and other sectors of the economy.[184] In short, the 2010 Ghana-China R4I contract unveils two constitutive projects, namely a project to promote the exploitation of mineral deposits; and a road and railway project to open up the upper west, upper east and the eastern, middle, and northern regions of Ghana for development.[185]

As the above information shows, the type of infrastructure involved is testimony to the new pattern of economic exchanges taking place with R4I contracts. In the past, colonial enterprises, in Africa as in parts of Asia, built all the infrastructure (roads, houses, railways, ports and airports) necessary for the exploitation and exports of natural resources. That infrastructure was built for the purposes of mineral extraction. While those colonial patterns could be thought to have been repeated with R4I contracts,[186] the type and purposes of the infrastructure built as well as their overall political context present a strikingly contrasting picture. Infrastructure like roads, ports

[183] Anthony Yaw Baah *et al.*, *Chinese Investments in Ghana*, *supra* note 179, at 99.
[184] Ghana Government, *supra* note 152.
[185] *Id.*
[186] Phone interview with Jeffrey Delmon, *supra* note 29.

and airports, bridges still enables the extraction of minerals and hydrocarbons, but they now cover several other purposes unrelated to extractive activities, like education, water, agriculture, housing and health. These other purposes are apparent in the non-mining types of infrastructure built, modernized and rehabilitated by Chinese investors, such as hospitals and medical equipment, and training centers and universities.

Having said that, resource rich countries in Africa should stay the course in investments in mining infrastructure because this is infrastructure that considerably augments production and thus revenues for state coffers. This sort of public investments is wise and efficient, and it cannot be equated to a duplication of colonialism because political control over minerals and hydrocarbons is firmly in the hands of the host country. The *Thirst for African Oil* explicitly states that the experience of Asian oil corporations in Nigeria and Angola belies the stereotype of weak African states being ruthlessly exploited by resource-hungry Asian tigers.[187] Both Nigeria and Angola exerted a great deal of control and influence over their economic relations with Chinese and other Asian oil corporations.

The general political context also tells a non-colonial story: In the colonial days the decision as to the quantity, the location and sort of infrastructure to be built were dictated by colonialists; with R4I contracts these decisions are made by sovereign states. Whether these states are democratic in making these decisions is however a separate albeit fundamental issue.

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[187] ALEX VINES *ET AL.*, *supra* Ch. 1 note 29, at 3.

4.6. Monitoring institutions

Very often, host countries set up institutions to monitor the infrastructural works provided for in R4I contracts and carried out by Chinese construction companies. The host countries do not have physical control over infrastructure funds but they nevertheless decide where, how much and which types of infrastructure must be built and they monitor the construction process. In countries where R4I contracts have been signed, the institutions implementing infrastructural works are usually directly linked to the presidency of the host country. Those links are for instance found in Angola and the DRC. In addition to signaling their importance for the host country's economy, these direct connections to the presidency signal the highly political nature of R4I contracts. In fact, R4I contracts can be seen more as political deals between the host countries and China than as commercial transactions.[188]

4.7. The Angolan Office for the Management of the Eximbank Credit Line

The Angolan government has not just fully integrated its R4I contract with China into its National Reconstruction Program, it also set up a number of institutions to monitor the credit line that it received from China Eximbank. The Angolan incorporation of China's investments into its national strategies and the creation of monitoring institutions may be the most proximate cause of the relative success of the Sino-Angola R4I contract in Angola.[189] By contrast, in Nigeria President Obasanjo's attempts to trade oil for infrastructure were not part of a national strategy; Obasanjo did not set up

[188] Phone interview with Jeffrey Delmon, *supra* note 29; phone interview with Markus Weimer, *supra* note 8 (explaining that resource-for-infrastructure agreements are not just commercial transactions, they are also political deals).
[189] Phone interview with Markus Weimer, *supra* note 8 (suggesting that the Sino-Angolan R4I contract may have succeeded because Angola had a plan of what they wanted).

any monitoring institution or mechanism, nor were the promise by the Asian oil corporations to build infrastructure legally binding.[190]

In Angola, the government created on July 6, 2004 an office to monitor the infrastructure-related credit line that it obtained from China within the framework of the R4I contract that it signed with China. It created upon publication of a government dispatch (*despacho*) the Office for the Technical Support and Management of the Credit Line with Eximbank of China (*Gabinete de Apoio Técnico à Gestão da Linha de Crédito com Eximbank da China*).[191] The 6th Extraordinary Session of the Cabinet Meeting on June 30, 2004 approved the proposal for the creation, under the authority of the Ministry of Finance, an Office for the Technical Support and Management of the Credit Line with Eximbank of China.[192] The Session was attended by the Finance Minister, the Minister of Planning, the Minister of Foreign Affairs, the Cabinet Secretary, the Governor of the National Bank of Angola and the Prime Minister of Angola.[193]

At that extraordinary Cabinet meeting, the then Finance Minister José Pedro de Morais Júnior created the Office for the Technical Support and Management of the Credit Line with Eximbank of China (OMCL or Office). The Finance Minister placed the Office under the authority of the Ministry of Finance, which also coordinates the Office.[194] He also appointed as OMCL deputy coordinator the then Deputy Finance Minister Eduardo Leopoldo Severim de Morais (who later became Finance Minister).[195]

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[190] For more on the Nigeria's attempts at exchanging oil for infrastructure, see ALEX VINES *ET AL.*, *supra* Ch. 1 note 29.
[191] Despacho No. 153/05, de 6 de Julho de 2004, Diário da República de 23.7.2004. (Angl.)
[192] *Id.*
[193] *Id.*
[194] Despacho No. 153/05, de 6 de Julho de 2004, Diário da República de 23.7.2004 art. 1. (Angl.)
[195] Despacho No. 153/05, de 6 de Julho de 2004, Diário da República de 23.7.2004 art. 2. (Angl.)

The Finance Minister incorporated into the Office several officials from other important national institutions, making the Office a multi-sectoral technical group. Among other officials, the Finance Minister incorporated into the Office an adviser and an expert from the Ministry of Finance, a department head of the National Directorate of the Treasury, the National Director of Investments and an expert from the Ministry of Planning, an administrator and 2 department heads from the National Bank of Angola, the director of General Services of the Cabinet Secretariat, and the Coordinator of Bilateral Cooperation of the Ministry of Foreign Affairs.[196]

4.7.1. Nature and objectives of the Office

The Finance Minister made several provisions on the organization and functioning of the Office for the Technical Support and Management of the Credit Line with Eximbank of China by adding a legal instrument to that effect as an annex to the government dispatch that created the Office.[197] The OMCL dispatch explains that the credit line agreed upon by China Eximbank and the Angolan government, in addition to being the principal source of finance for the Program of Public Investments for the period 2004-2006, would be the financial support for the revival of economic activities and the betterment of social conditions in important areas of the country.[198] The OMCL was created specifically for the complete fulfillment of these objectives.[199]

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[196] Despacho No. 153/05, de 6 de Julho de 2004, Diário da República de 23.7.2004 art. 3. (Angl.)
[197] Orgânica e Funcionamento do Gabinete de Apoio Técnico à Gestão da Linha de Crédito com Eximbank da China, Despacho No. 153/05, de 6 de Julho de 2004, Diário da República de 23.7.2004 Annex [Hereinafter OMCL Dispatch]
[198] OMCL Dispatch I Natureza do Gabinete.
[199] *Id.*

The OMCL is an organ designed for technical support and affiliated to the Ministry of Finance, as borrower, for the implementation and management of financial facilities in order to articulate coordination between all participants and to assist the government in obtaining all the information necessary to accompany the government in its quest for the fulfillment of the objectives prescribed in its general program.[200]

The objectives of the Office are threefold. The Office aims at the (1) the execution of the tasks envisaged in the implementation mechanisms of the agreement on the credit line, (2) the treatment and technical organization of the approved projects and their respective contracts; and (3) the monitoring and supervision of the (physical and financial) execution of the investments program with the support of the Chinese credit line.[201]

4.7.2. Composition and functioning

The Office is coordinated by the Ministry of Finance and composed of the following officials: 3 senior experts of the Finance Ministry, 2 senior experts from the Ministry of Planning, 2 senior experts from the National Bank of Angola, one senior expert from the Cabinet Secretariat, and one representative from the Ministry of Foreign Affairs.[202] The OMCL dispatch stipulates that one of the representatives from the Finance Ministry, the Ministry of Planning and the National Bank of Angola must work full time for the Office.[203]

[200] *Id.*
[201] OMCL Dispatch II Objectivos.
[202] OMCL Dispatch III Composição e funcionamento 1.
[203] OMCL Dispatch III Composição e funcionamento 2.

The Office has an interlocutor (point of contact) in each Ministry (sector) that will be the coordinator or/and project leader of the teams in their respective sector.[204] The contact point is also the primary person in charge of the materialization of the goals defined in each project.[205] Sectoral ministries are responsible for the execution of infrastructure projects falling under their respective sectors and for ensuring the training of sufficient staff, like nurses and teachers.[206]

The Office functions within the premises and budget of the Ministry of Finance.[207] For the realization of its mission, the Office will be able to count on specialized technical assistance through the punctual employment of or agreement with specialists, consultants and the like.[208]

The OMCL dispatch has attributed to the Office various responsibilities. The Office must:[209]

(1) ensure the application and execution of the tasks that have been attributed to it in the implementation mechanism set out in the agreement on the credit line (procedures);

(2) guarantee good coordination, administration, discipline and rigor in the implementation of the investment program with the financial support of Eximbank;

(3) establish, within the ambit of the abovementioned mechanism, connections with the Chinese Ministry of Commerce, China Eximbank, Angolan ministries

[204] OMCL Dispatch III Composição e funcionamento 3.
[205] *Id*.
[206] ALEX VINES *ET AL*., *supra* Ch. 1 note 29, at 48.
[207] OMCL Dispatch III Composição e funcionamento 4.
[208] OMCL Dispatch III Composição e funcionamento 5.
[209] OMCL Dispatch IV Atribuições.

through interlocutors or points of contact, national banks, financial intermediaries and intervening national operators (corporations, institutions, etc.).

(4) accompany transfers in the Escrow Account, proposing measures deemed necessary for the execution of the agreement on the credit line and suggesting ways of utilizing excess amounts;

(5) hand over contracts to the Economic Team and the Permanent Commission of Cabinet Meetings for approval, after agreeing with the intervening sectors;

(6) propose to the Economic Team of the government a model for the participation of national corporations into ventures and acquisitions of national products (30 percent of local contents) and accompany its execution; and

(7) submit to the Economic Team and the Permanent Commission of the Cabinet Meetings detailed monthly reports on the implementation mechanism of the credit line, highlighting:

i) the situation of ongoing projects;

ii) the execution of initial payments;

iii) the projects awaiting Chinese approval;

iv) the available assets in the credit line;

v) expenditures effected and debt servicing;

vi) position of the escrow account;

vii) monitoring of the physical execution of ongoing projects; and

viii) proposals of measures deemed necessary[210].

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[210] 'The tasks already indicated in the document on the implementations mechanisms of the Agreement on the Credit Line with the Eximbank of China': OMCL Dispatch IV Atribuições.

4.8. Congolese monitoring institutions

The Congolese government has also put in place institutions staffed by technical experts to monitor and supervise the infrastructural works in the context of the R4I contract between the DRC and China. Like Angola, the constitutive documents of those institutions are readily available, just like the Sino-Congolese R4I contract itself, which has been officially published, initially on the Congolese President's official website and later on the website of the President's Five Great Works.[211]

Upon request by the Infrastructure Minister, the Congolese government has created institutions whose attributions include monitoring and supervising the infrastructural works carried out as part of the R4I contract between the DRC and China. Those two main institutions are the Congolese Agency for the Great Works (ACGT, an acronym from its French name *Agence Congolaise des Grands Travaux*) and the Bureau of the Coordination and the Monitoring of the Sino-Congolese Program (BCPSC, from its French name *Bureau de Coordination et du Suivi du Programme Sino-Congolais*). The Congolese President created both the ACGT and the BCPSC by presidential decree on August 26, 2008.[212] Unlike the Angolan Office for the Technical Support and Management of the Credit Line with Eximbank of China, the Congolese ACGT and BCPSC do not fall under the authority of the Finance Minister but under the Infrastructure Minister, who also acts as the president of the ACGT.[213]

[211] Les Cinq Chantiers du Chef de l'Etat, www.cinqchantiers-rdc.com (last visited Mar. 8, 2010).
[212] Decree No. 08/017 of August 26, 2008, Journal Officiel de la République Démocratique du Congo [J.O.][Official Gazette of the Democratic Republic of the Congo], September 1, 2008 [hereinafter AGCT Decree]; Decree No. 08/018 of August 26, 2008, Journal Officiel de la République Démocratique du Congo [J.O.][Official Gazette of the Democratic Republic of the Congo], September 1, 2008 [hereinafter BCPSC Decree].
[213] ACGT Decree art. 1.

4.8.1. The Congolese Agency for the Great Works

The Congolese Agency for the Great Works (ACGT) is a technical public service enjoying administrative and financial autonomy but working at the instigation and under the instructions of the Infrastructure Minister.[214] The presidential decree that instituted the ACGT expressly states that the ACGT has been created for the purposes of the DRC's national reconstruction program, implementing its Five Great Works, especially basic infrastructure, and the R4I contract between the DRC and its Chinese partners.[215]

The ACGT is tasked with the coordination, supervision and control of the execution of the R4I contract between the DRC and China. It plays the role of the contracting authority and serves as a single window or one-stop center in the execution of infrastructure projects.[216] More specifically, the functions of the ACGT include documenting all infrastructure projects, defining and planning the infrastructure program, approving feasibility studies after their ratification by the relevant government structures, designating the office of public works and drainage and the roads office as contracting authority where it is necessary, preparing infrastructure contracts to be submitted to and signed by the Infrastructure Minister. The functions of the ACGT also include supervising and coordinating infrastructure works, monitoring of billing and disbursement with respect to the infrastructure works executed in collaboration with Sicomines and other Chinese partners, and acting as the interface between infrastructure projects and sectoral ministries and other government structures.[217]

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[214] ACGT Decree art. 1.
[215] ACGT Decree preamble.
[216] ACGT Decree art. 3.
[217] ACGT Decree art. 3.

The ACGT has two main structures, the Executive Committee (*Comité de Direction*) and the General Directorate (*Direction Générale*). The Executive Committee is composed of people from the Infrastructure Ministry and from various departments of the AGCT.[218] The General Directorate of the ACGT comprises a dozen sections cutting across infrastructure sectors. It comprises sections on, among other areas, roads, public roads, buildings, railways, ports and airports, environment and energy.[219] The ACGT Decree stipulates that the operations of ACGT are facilitated by financial and physical resources provided by Sicomines or any other Chinese partners and the Congolese government.[220] The ACGT may also benefit from the expertise of experts provided by national and international organizations and partners.[221] And in order to facilitate the operations of the ACGT, the ACGT Decree exonerates the ACGT from all taxes.[222]

4.8.2. The Bureau of the Monitoring of the Sino-Congolese Program

Like the ACGT, the Bureau of the Coordination and the Monitoring of the Sino-Congolese Program (BCPSC) is a multi-sectoral technical public service enjoying administrative and financial autonomy. However, unlike the ACGT, the BCPSC does not work under the instructions of the Infrastructure Minister but the Prime Minister.[223] Still like the ACGT, the BCPSC has been set up for the materialization of the DRC's national reconstruction program, implementing its Five Great Works, especially basic infrastructure, and the R4I contract between the DRC and its Chinese partners.[224]

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[218] ACGT Decree art. 8.
[219] ACGT Decree art. 15.
[220] ACGT Decree arts. 4-5.
[221] ACGT Decree art. 5.
[222] ACGT Decree art. 21.
[223] BCPSC Decree art. 1.
[224] BCPSC Decree preamble.

The principal function of the BCPSC is to manage and monitor the R4I contract between the DRC and its Chinese partners in the sectors of mining and basic infrastructure.[225] A more specific function of the BCPSC is to serve as interface between the different parties and entities with an interest in the projects originating from cooperation agreements on infrastructure, especially the Congolese government, the consortium of Chinese state-owned corporations, Sicomines or any other joint ventures for the exploitation of natural resources, the ACGT as well as the structures of Chinese partners charged with the monitoring of those projects.[226] Other specific functions are to monitor the application of agreements with China, to prepare different meetings and negotiations between the parties and to ensure that negotiations with banks or financial institutions for additional support are successful.[227]

The BCPSC is composed of an Inter-Ministerial Coordination Committee (*Comité Interministériel de Coordination*) and an Executive Secretariat (*Secrétariat Exécutif*).[228] The Coordination Committee is constituted of all Ministers directly involved in the projects resulting from agreements with Chinese partners.[229] Nevertheless, a number of Ministers are members of the Coordination Committee by virtue of their function. Those Ministers are the Minister of Presidential Affairs, the Minister of Prime Ministerial Affairs (*Ministre Près le Premier Ministre*), the Infrastructure Minister, the Foreign Affairs Minister, the Finance Minister, the Budget Minister, the Minister of Mines, the Transport Minister, the Energy Minister, the Minister for Housing, the Minister of Relations with Parliament, the General Director of the ACGT, the Vice-President of the joint venture for the exploitation of natural

[225] BCPSC Decree art. 3.
[226] *Id.*
[227] *Id.*
[228] BCPSC Decree art. 4.
[229] BCPSC Decree art. 6.

resources, and the Executive Secretary of the BCPSC.[230] The Executive Secretariat is composed of three structures, namely a multidisciplinary committee of experts, an economic mission in the Congolese Embassy to China and a support service.[231] The Economic Mission in the Congolese Embassy to China is charged with information on projects and with maintaining contact with China.[232]

The Congolese government provides the BCPSC with a budget and further supports it with subsidies.[233] The patrimony of the BCPSC includes movable and immovable property with which the government has endowed it; material equipment and diverse things acquired in the context of the DRC-China R4I contract, represented by the Chinese state-owned corporation China Railway and Engineering Corporation (CREC); any other thing from other partners to the contract; and donations and bequests.[234]

4.9. The Bui Power Authority in Ghana

President John Kuffuor enacted on 31st July 2007 the Bui Power Authority Act to establish an Authority charged with the development of a hydroelectric power project on the Black Volta River at Bui and any other potential hydroelectric power project on the River.[235] The Authority plans, executes and manages the Bui hydroelectric power project.[236] It (1) controls the flow and the level of water in the lake to prevent flooding downstream, the overtopping or breaching of the dam by flood,[237] and (2) warns of possible flooding from the lake or the River downstream from the dam.[238] The Act

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[230] *Id.*
[231] BCPSC Decree arts. 12 and 13.
[232] BCPSC Decree art. 14.
[233] BCPSC Decree art. 20.
[234] BCPSC Decree art. 19.
[235] Bui Power Authority Act preamble, 740 of 2007.
[236] Bui Power Authority Act 11(1).
[237] Bui Power Authority Act 12(1).
[238] Bui Power Authority Act 12(2).

empowers the Authority to perform a number of tasks with relation to the transmission lines for the evacuation of the electrical power generated at the dam to the national electricity grid.[239]

The Act has tasked the Authority with the acquisition of lands and resettlement measures. Subject to article 20 of the Ghanaian Constitution, the President must cause to be acquired lands, which in the opinion of the Authority's Board, may be required (1) to be inundated by the filling of the lake, (2) for the development of the Bui township, and (3) for the use of persons being resettled. Article 20 of the 1992 Ghanaian Constitution prevents the state from compulsorily taking property unless the taking is necessary in the public interest or for the public purpose,[240] and unless the necessity for the taking is clearly stated and reasonably justified.[241] Furthermore, the state can compulsorily take property only if it promptly pays fair and adequate compensation and if the persons affected by the taking are entitled to approach the High Court for compensation and the determination of their rights.[242] Where a compulsory taking of land by the state involves displacement of any inhabitants the state must resettle the displaced inhabitants on suitable alternative land with due regard for their economic wellbeing and social and cultural values.[243] However, the Constitution does not derogate from any general law that provides for the compulsory taking of property[244] for as long as may be necessary for the carrying out of work on

[239] Bui Power Authority Act 13.
[240] GHANA CONST. 1992 art. 20(5).
[241] GHANA CONST. 1992 art. 20(1).
[242] GHANA CONST. 1992 art. 20(2).
[243] GHANA CONST. 1992 art. 20(3).
[244] Bui Power Authority Act 740, 2007 art. 23 (providing that the State Lands Act, 125 of 1962, applies to the acquisition of lands for the purpose of building the Bui dam).

any land for the purpose of the provision of public facilities and utilities, subject to compensation in case of damage.[245]

The governing body of the Bui Power Authority is a Board consisting of a chairperson, a chief executive officer, and 5 other members with expertise in finance and the operations of a power utility, with 1 of the five members representing major consumers of electrical power.[246] The Authority has many sources of funding, including money approved by Parliament, loans granted by the government or any other person, revenue accruing from banks, and donations.[247] Though it collaborates with other government departments and agencies and any other public authorities,[248] the Authority is not the kind of multi-sectoral technical groups that the Angolan OMCL and Congolese BCPSC are. This difference is most probably due to the narrower scope of the Bui dam project compared to the nationwide infrastructure projects in the Sino-Angolan and Sino-Congolese R4I contracts.

4.10. Fiscal regimes

In the case of the Sino-Angolan R4I contracts, a Cabinet resolution creates two fiscal regimes, one for independent corporations and another for other corporations. All supply contracts and contracts for services relating to the construction of infrastructure must be subject to the fiscal regime of an independent firm (*empresa independente*).[249] Taxation must be effected for entities totally independent of the contracts.[250]

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[245] GHANA CONST. 1992 art. 20(4)(e).
[246] Bui Power Authority Act 2(1).
[247] Bui Power Authority Act 19(1).
[248] Bui Power Authority Act 16.
[249] Resolução No. 83/05, de 16 de Novembro de 2005, Diário da República de 19.12.2005. 1 (Angl.)[hereinafter Angolan Fiscal Resolution]
[250] Angolan Fiscal Resolution 2.

The agreement on the fiscal regime will have to take into account the principal objectives of inspection, supervision, control and monitoring of the execution of the infrastructural works, which is the objective of the main contract.[251] The latter contract does not include other infrastructural works that can prejudice the main agreement, especially the accessory technique of the monitoring institution, on the management of the project in question and the training of workers.[252] For the execution of the contracts, the monitoring institution and contractors remain subject to the fiscal regime in force with respect to other entities.[253] Agreements on fiscal regimes are negotiated and signed by the institutions monitoring the main contract, with the Finance Ministry being responsible for the designation of the sources of finance for those contracts.[254]

In the case of the Sino-Congolese R4I contract, the parties have agreed that, in order to facilitate the reimbursement of infrastructure investments, the DRC undertakes to exonerate the mining and infrastructure projects of the R4I contract from all customs and excise requirements, mining royalties and taxes, direct or indirect, within the country or at import or export, due in the DRC and those relating to mining and infrastructure activities.[255] All taxes paid by Sicomines during the reimbursement period will be accounted for as infrastructure expenses.[256]

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[251] Angolan Fiscal Resolution 3.
[252] *Id.*
[253] Angolan Fiscal Resolution 4.
[254] Angolan Fiscal Resolution 5.
[255] DRC framework agreement art. 14.2.
[256] DRC framework agreement art. 14.2.4.

4.11. Subcontracting

The Angolan government passed a resolution setting down eligibility criteria for subcontracting as well as the rules and procedures for subcontracting.[257] The subcontracting resolution expressly stated that the reinforcement of the role of the Angolan business class in the process of national reconstruction is one of the objectives of the Angolan government.[258] The resolution takes into account the 2 billion US dollars loan agreement between Angola and Eximbank, which implicitly embodied the principle of subcontracting to the Angolan firms for the realization of subcontracts up to 30 percent of the value of each contract.[259] For the purposes of the subcontracting resolution, are 'Angolan' all firms owned by Angolan citizens, or commercial firms, duly incorporated and with their headquarters in Angola, and in which at least 51 percent of the capital is owned by Angolan citizens or firms.[260]

In turnkey projects or BOT or any other project that permits or recommends the constitution of a subcontract job, an Angolan firm must be selected.[261] The Chinese company hired for the construction job must transfer to the Angolan firm – progressively and according to a program that has a clearly defined objective, implementation and timeframe – scientific knowledge, professional and management techniques, that will allow the full assumption by the Angolan firm and for a period established by agreement the management of the (construction) business.[262]

[257] Resolução No. 21/05, de 12 de Maio de 2005, Diário da República de 22.7.2005. 1 (Angl.)[hereinafter Angolan Subcontracting Resolution]
[258] Angolan Subcontracting Resolution preamble.
[259] *Id.*
[260] Angolan Subcontracting Resolution 2.
[261] Angolan Subcontracting Resolution 3.
[262] *Id.*

To qualify for subcontracting, firms must satisfy the following requirements cumulatively: Their legal and fiscal situation must be in order; their accounting must be organized; they must have technical capacity, endogenous or acquired through contractual association, for the performance of the responsibilities they assumed; they must not be indebted to some organ of the public administration or some organism or firm of a public nature or whose majority shareholder is the state; and they must have been incorporated at least two years before the subcontracting.[263] In circumstances of equality, preference is given to a firm that possesses rights to a credit, legally recognized, vis-à-vis some organ of the public administration or some organism or firm of a public nature or in which the state is the majority shareholder.[264] For the selection of subcontractors by the competent ministries and provincial governments, depending on whether the projects are central or local, a list of Angolan firms must be established.[265]

The Ministry of Finance must through restricted competition select an Angolan firm, with recognized competence and suitability, as advisor and assistant to the government in all matters relating to the subcontracting of construction works to Angolan firms.[266] The selected Angolan firm will advise and assist the government, especially with respect to the publication of infrastructure contracts, the assessment of the candidatures of firms, technical assistance to the Angolan firms during negotiations with a Chinese party, the preparation of contracts, and the monitoring of the implementation of the contractual obligations assumed by the parties.[267]

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[263] Angolan Subcontracting Resolution 4.
[264] Angolan Subcontracting Resolution 5.
[265] Angolan Subcontracting Resolution 6.
[266] Angolan Subcontracting Resolution 7.
[267] *Id.*

In addition, an economic team of the government must conduct a systematic monitoring of the process of subcontracting business to Angolan firms, within the ambit of the agreement between Angola and Eximbank, so as to ensure that the objectives of the economic policy of the government are fully attained.[268] The team must report on its progress to the Permanent Commission of Cabinet Meetings and formulate appropriate recommendations on that matter.[269]

A Coordinating Group, composed of economic assessors from the Office of the President, the Office of the Prime Minister and the Office for the Management of the Eximbank Credit Line, must be the articulation between the economic team and the firm advising and assisting the government.[270] The Group will have to prepare all the documents necessary for the facilitation of the monitoring of the process of subcontracting business to Angolan firms by the economic team and its control by the Permanent Commission of Cabinet Meetings.[271]

Subcontracting and the selection of firms must take place without prejudice to the atmosphere of competition among the firms operating in the Angolan business and harmonious investment within the national territory.[272]

5. R4I versus other investment contracts

In this final part, the chapter compares and contrasts R4I contracts with other investment contracts. The chapter first compares R4I contracts with production sharing

[268] Angolan Subcontracting Resolution 8.
[269] *Id.*
[270] Angolan Subcontracting Resolution 9.
[271] *Id.*
[272] Angolan Subcontracting Resolution 10.

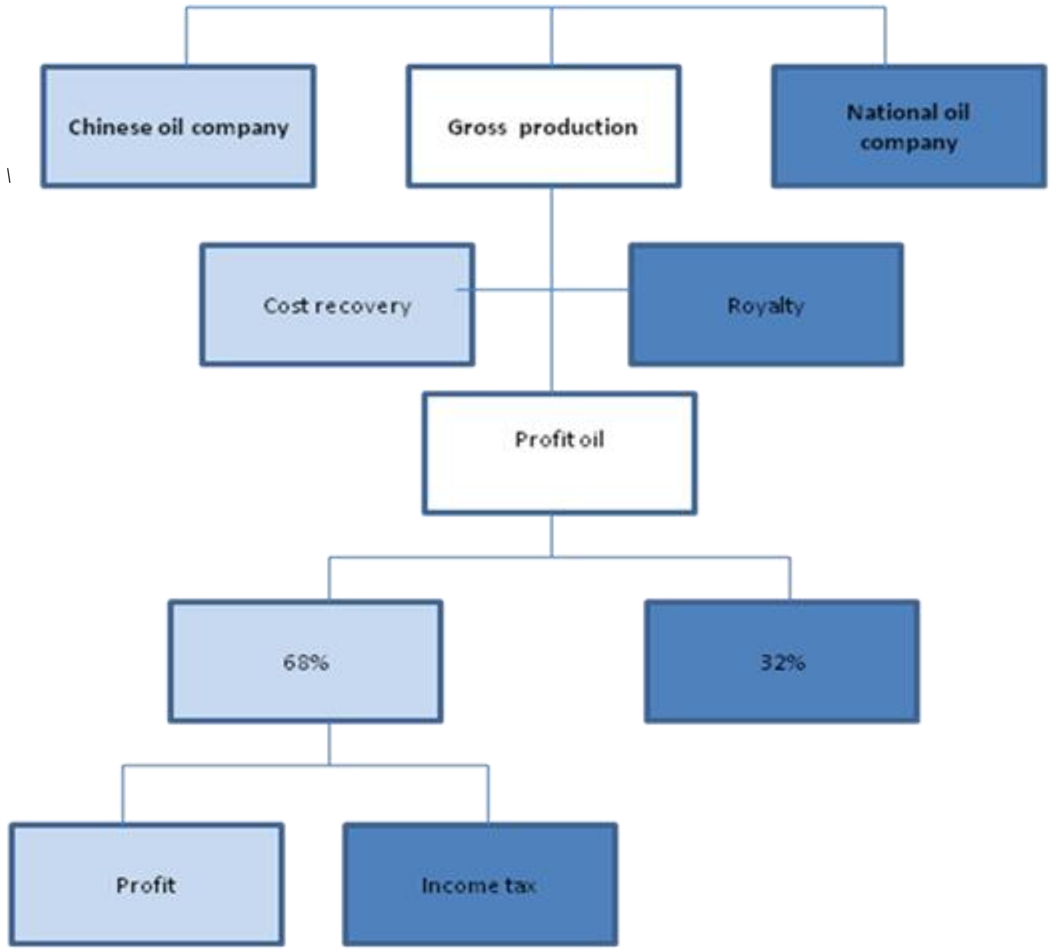
agreements (PSA), the most common type of mining investment contracts. Then it compares R4I contracts with infrastructure investment contracts and build own and transfer (BOT) projects, which are a frequently used type of infrastructure contracts. In the end, the chapter shows that R4I contracts are the combination of a PSA and a BT project and that the R4I contracts yield greater FDI benefits than the mere sum of a mining contract and an infrastructure project.

5.1. R4I contracts and production sharing agreements

Profit sharing agreements or, more commonly, production sharing agreements (PSAs) are the most common contract form in oil and mining FDI. Under PSAs, if and when oil reserves are found and produced, the two parties to the PSA divide the product among themselves following a negotiated formula, often subject to a gradual decrease of the rights of the investor,[273] as shown in Figure 14 below.

Figure 14: Production-sharing agreement model

[273] RUDOLF DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 73.



Source: K. Bidemann, *Production-Sharing Agreements* (1999) 13.

Perhaps, the most obvious difference between R4I contracts and PSAs is that PSAs constitute but one half of R4I contracts, the other half being the infrastructure project. As is the case with PSA, with R4I contracts host countries share profits with foreign investors according to a negotiated formula. The difference is that the dividends of the host country are first allocated to the full repayment of infrastructure investments before they can fill the coffers of the host country's treasury. Nonetheless, some jurists may object that the fact that the host government directly allocates its mining revenues to the construction of infrastructure implies that it is incorrect to refer to the oil/mining side of R4I contracts as a PSA.[274]

Another difference is that PSAs became common in the 1960s and 1970s while foreign investors and host countries started using R4I contracts at the turn of the 21th century. And whereas PSAs followed the wave of independence in the 1960s, R4I contracts followed the ascendency of China as a global economic player in the early 2000s. Since their early implementation by Indonesia in the 1970s, PSAs became popular with many governments in developing countries saddled with uncertain legal regimes.[275] Since the early 2000s, Chinese recurred to R4I contracts in resource rich countries with which they form joint ventures. Those joint ventures became vehicle for the financing of major infrastructure projects in the host countries. PSAs place the burden of financing on the shoulders of host states.[276] However, with R4I contracts, the burden of financing is placed on one shoulder of the foreign investor and on one shoulder of the foreign investor, by swapping resources for infrastructure.

5.2. R4I contracts and infrastructure projects

5.2.1. Contracts and infrastructure projects

Contracts and contract law perform essential functions in the provision of public infrastructure. One such function is risk mitigation. Indeed, the structure of contracts allocates risks between the numerous parties in infrastructure projects. Foreign investors face a set of risks unique to FDI in public infrastructure, which often calls for

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274 Interview with Jean Paul Kimbulu Kandolo, *supra* Ch. 5 note 34 (arguing that the mining deal in the Sino-Congolese R4I contract could not be a PSA because the Congolese parties would 'share' any profits, at least in the initial stages of the deal's implementation).
275 Vitaly Timokhov, *supra* Ch. 2 note 117.
276 RUDOLPH DOLZER & CHRISTOPH SCHREUER, *supra* Ch. 1 note 65, at 73.

the intervention of the host state. These risks may arise over the life of an investment in infrastructure for several reasons. First, the majority of infrastructure projects take place in sectors dominated by government-owned 'natural' monopolies (for instance, the oil, water, electricity, transport, and telecommunication sectors) and where state regulation is necessary for consistent and fair standards for prices and services.[277] State regulation is therefore necessary for foreign investors to reap sufficient return on their investment.

Second, public infrastructure as water and transportation are widely consumed by and thus essential to local populations such that infrastructure-related activities are likely to ignite social pressures.[278] Third, since FDI in infrastructure involves large sunk costs and long amortization periods, government support is crucial for continued adherence to contract terms over the life of the investment and for investors to recover cost and make a profit.[279] Finally, the economy of infrastructure projects tends to be unstable and political risks are hard to mitigate in such projects.[280]

Infrastructure contracts must be so designed that they match the overall legal framework of the host state for the infrastructure project. In practice, the legal history, tradition and ideology make certain contract types incompatible with the legal system of the host countries. Concession contracts are more familiar with Anglophone, common law systems whereas affermage more familiar with Francophone, civil law systems in Africa.[281] Noting that not all legal frameworks are comparable and that

[277] Erik J. Woodhouse, Note, *The 'Guerra Del Agua' and the Cochabamba Concession: Social Risk and Foreign Direct Investment in Infrastructure*, 39 STAN. J. INT'L L. 295, 297 (2003); Afeikhena Jerome, *supra* Ch. 4 note 85, at 3.
[278] *Id.* at 298.
[279] *Id.*
[280] *Id.*
[281] Antonio Estache, *supra* Ch. 4 note 87, at 27.

infrastructure reforms will not remedy this situation, Antonio Estache says that one of the challenges facing policy makers will be to ensure that infrastructure contracts fit the legal system of the host country while still improving performance across infrastructure sectors.[282]

5.2.2. Contractual framework

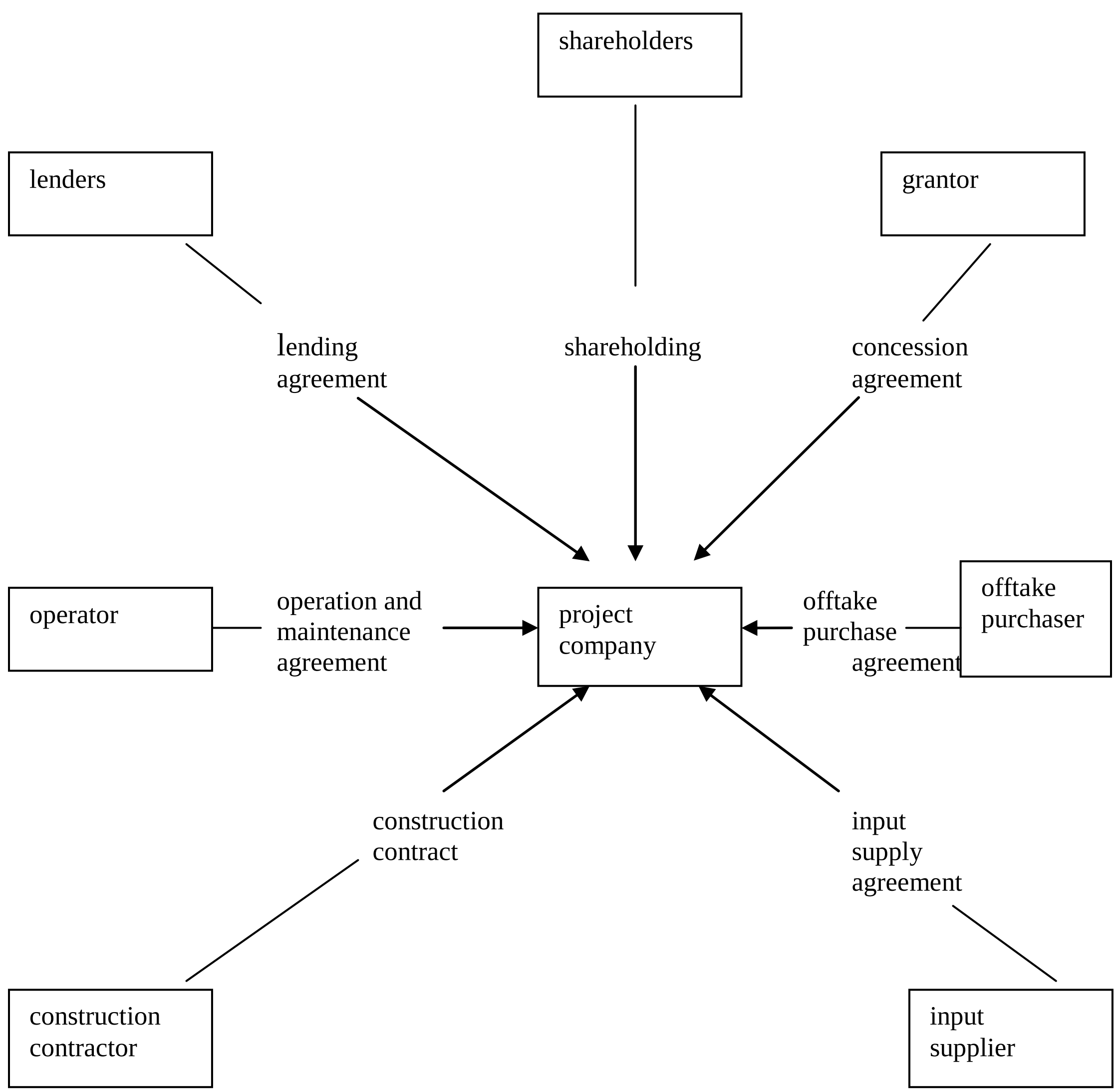
A concession agreement is the entry point of a wider contractual complex that may comprise seven contracts, namely a shareholders' agreement, a performance-based maintenance agreement, a loan agreement, an input supply agreement, an offtake purchase agreement and a construction contract. Each agreement puts on the table something that the other agreements do not. For instance, the loan agreement, the concession, the construction contract, and the input supply agreement will put on the table financing ability, political authority, technical know-how, procurement of supplies and human resources, respectively.[283] Although it is not rare for public private partnership (PPP) like a BOT (build, operate and transfer) project to consist of all these seven contracts, infrastructure projects may include any number of contracts greater or lesser than the seven mentioned above. In practice, however, parties incorporate one to three, if not more, of the above contracts into one and the same agreement document.

Similarly, in R4I investment contracts, one and the same project participant, that is China, cumulates numerous roles and functions (shareholder, lender, construction contractor, input supplier and offtake purchaser) through its state-owned corporations. Thus, Figure 15 below provides a conceptual framework for analyzing PPPs, especially

[282] *Id.*
[283] Christophe Dugué, *Dispute Resolution in International Project Finance Transactions,* 24 FORDHAM INT'L L.J. 1064 (2001).

BOT projects, and do not describe the structure of all PPPs, which widely vary in practice from project to project. Moreover, the framework does not illustrate (yet does not exclude) the recurrent necessity in practice for the project company to enter into direct agreements with some or all the project participants. A BOT project, which is very common in PPP, would usually display a structure that look like the one in Figure 15 just below.

Figure 15: The contractual structure of a BOT project



Source: J. Demon, *Private sector investment in infrastructure* (2009) 99.

1) Concession agreement

A concession agreement is an instrument concluded between a state and a foreign person in which the state grants to the foreign investor for an extended period of time certain rights or powers which normally would belong to or be exercised by the state.[284] Concession agreements are just one, albeit pivotal, piece among others in a wider contractual web in a typical PPP project. Under the concession agreement, the grantor – usually a government agency or a national or local division of the host government – grants to the joint venture or project company a concession of public infrastructure or a number of rights to the infrastructure for a certain period of time. When the foreign investor is responsible for project finance, then the arrangement is a 'pure concession.'[285]

Concession agreements are the axis around which other agreements and contracts revolve in a PPP project. The infrastructure side of R4I contracts contains clauses similar to concession agreements. Concession agreements are dealt with in greater detail in another section below.

2) Shareholders' agreement

A shareholder's agreement is a formal agreement among shareholders that regulates the relations among the shareholders (who often consist of the project sponsors) of a project company or joint venture. These internal relations include the creation of the

[284] This definition is inspired by A.A. FATOUROS, GOVERNMENT GUARANTEES TO FOREIGN INVESTORS 125 (Columbia University Press 1962).
[285] Jacques Cook, *supra* Ch. 2 note 93, at 24.

project company or joint venture, the business of the project company, voting agreements, buy/sell agreements and restrictions on the issuance of new shares. Generally, the project company or joint venture is a party to the shareholders' agreement.[286] Shareholders' agreements may contain many documents (for example, shareholder loans and stand-by credits), and constitutional documents (for example, articles of association or incorporation and a joint venture agreement).[287]

3) Lending agreements

Lending agreements refer to the set of distinct agreements that provide for the terms and conditions for the lending of money by the lenders to the project company. R4I contracts characteristically comprise an important infrastructure loan agreement. Lenders could be any one of the following persons: A private lender such as a commercial bank, an export credit agency like China Eximbank, a bilateral or multilateral financial institution like the AfDB, or any combination of these persons. Finance for infrastructure projects may also originate from bondholders through the sales of the project bonds on capital markets, sovereign wealth funds or other financial intermediary. [288] Lending agreements provide for various security and account arrangements and intercreditor arrangements among lenders in projects involving more than one lender.[289]

The financing of infrastructure projects is highly leveraged in the sense that 80 to 100 percent of the financing comes from debt,[290] as opposed to equity. High leverage

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[286] *See* WILLIAM T. ALLEN *ET AL.*, COMMENTARIES AND CASES ON THE LAW OF BUSINESS ORGANIZATION 93 (Aspen Publishers 2007).
[287] JEFFREY DELMON, *supra* Ch. 1 note 56, at 100.
[288] *Id.* at 103.
[289] *Id.* at 100.
[290] Katharine C. Baragona, *supra* Ch. 4 note 123, at 141.

allows sponsors to risk a smaller portion of their funds and equity investment in projects and, sometimes, to reduce the cost of capital by substituting lower-cost tax-deductible interest for higher-cost taxable returns on equity.[291] In a BOT project or project finance transaction, the credit decision of a rational lender is based primarily on estimated cash-flow and the collateral value of the project's assets.[292] The loan is usually non-recourse, which means that the sponsors are not obliged to repay the balance of the loan should the project's revenue turn out to be insufficient for the full repayment of the loan. To minimize risks associated with non-recourse loans, lenders often require indirect credit support in the form of guarantees and other covenants from the sponsors, their parent companies affiliates, and other third parties involved in the project.[293]

4) Construction contract

Construction contracts – also known as engineering, procurement and construction (EPC) contracts – govern the construction phase of a BOT project. The project company or joint venture enters into a construction contract with the construction contractor to delegate or divest the duty that it owes to the grantor to design and build infrastructure. Lenders often require the signing of a construction contract that sets a fixed lump-sum price and the time frame for the completion, and places the majority – sometimes all – of the construction risk on construction contractors.[294] The contract will be as far as possible back-to-back with the concession agreement such that any construction risks shifts through the construction contract from the project company to

[291] *Id.*
[292] Michael P. Malloy, *International Project Finance: Risk Analysis and Regulatory Concerns*, 18 TRANSNAT'L LAW. 89, 90 (2004).
[293] Katharine C. Baragona, *supra* Ch. 4 note 123, at 141.
[294] JEFFREY DELMON, *supra* Ch. 1 note 56, at 102.

the contractor.[295] For instance, mining rights under the concession should be granted to at least the same duration as the duration of the loan to ensure the project company can generate the cash flows necessary to fully repay the loan.[296]

5) Input supply agreement and offtake purchase agreement

An input supplier is in terms of an input supply agreement obliged to supply to the project company a certain amount of input like fuel and, in some cases, a service rather than input. The input supply agreement places the supply risk on the shoulders of the input supplier. An offtake purchase agreement, on the other hand, obliges the offtake purchaser to buy a minimum amount of the project output or project service or pay for all fixed costs over a specified time no matter how much output it takes, creating a secure revenue stream and an important source of financing.[297] The offtake purchase agreement removes market risk from the risk matrix of the lender and grantor, and allocates it to the offtake purchaser. The offtake purchaser can be the grantor or the lender, as is the case with Chinese mining investment in R4I contractual arrangements. Input supply agreements and purchase agreements are not always necessary in infrastructure projects. There are projects, like waste water treatment, where the tag 'input supply agreement' is used to describe what is in fact an offtake purchase agreement and other projects, like roads, where offtake purchase agreements are not necessary.

6) Operation and maintenance agreement

An operation and maintenance agreement obliges an operator to operate and maintain the infrastructure project, a task that incidentally requires that the operator also

[295] *Id.* at 112.
[296] Phone interview with Elke Rehbock, *supra* Ch. 3 note 204.
[297] JEFFREY DELMON, *supra* Ch. 1 note 56, at 113.

manages the input supply and offtake purchase agreements. The operator is in charge of the operation and maintenance of the project over a defined period of time, characteristically from completion of construction, or the first completed section, until the end of the concession period.[298] The obligations of the operator should be in sync with those in the concession agreement, the offtake purchase agreement, the input supply agreement and other agreements relating to the operation of the project.[299]

The operator might be an agency of the host state, like a roads agency. Foster & Briceño-Garmendia say that countries with road funds are more successful in safeguarding road maintenance expenditures and spending on key segments that maximize network value, while those that also have road agencies attract more funding for the amelioration of road quality.[300] Timely attention to maintenance reduces the expenditure needed to sustain the road system in the long term.[301] Long-term maintenance neglect has caused a massive investment backlog of 3 billion US dollars in Africa.[302] The cost of rehabilitating infrastructure is many times greater than the cost of preventive maintenance.[303]

5.2.3. Concession agreements

As explained earlier in this dissertation,[304] since the early 1990s public agencies in developing countries have widely used concession agreements in PPP arrangements to finance infrastructure works and performance-based contracts to maintain those works. Concessions of public infrastructure to private corporations must be distinguished from

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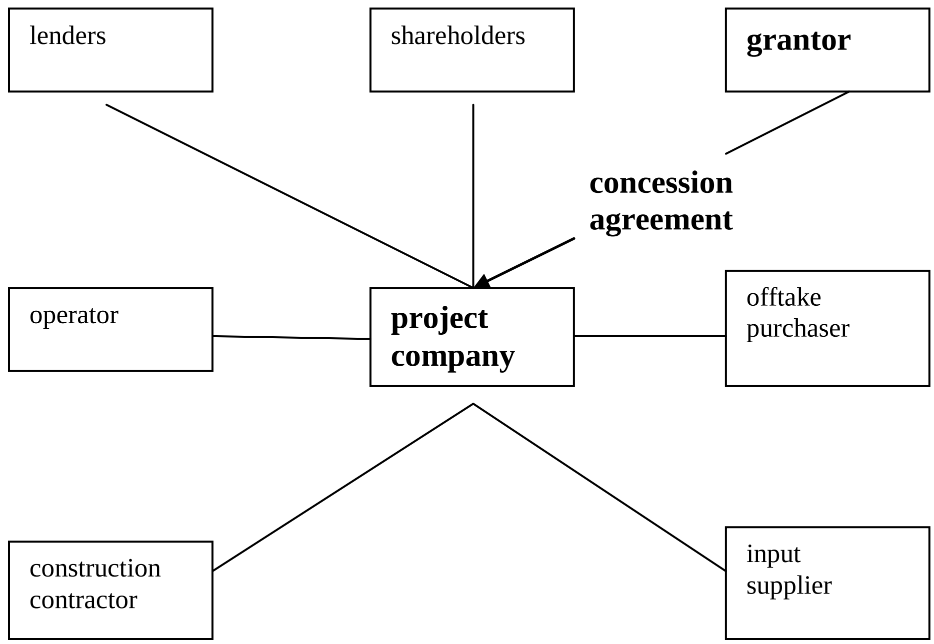
[298] *Id.* at 112.
[299] *Id.* at 103.
[300] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 221.
[301] *Id.* at 215.
[302] *Id.* at 237.
[303] *Id.* at 10.
[304] *See* Chapter 2.

concessions of natural resources to private investors, both of which have a long and rich history in developing countries. In the 1990s, many countries in Africa introduced concessions after the failure of attempts to commercialize railway businesses while retaining ownership of the railways. Today, concessions also form part of R4I contractual framework.

Concessions are a type of PPP in which the state retains the ownership of a public infrastructure while a private investor is allowed not only to design and build, but also to operate and maintain, and in some cases finance, the infrastructure and the rolling stock,[305] as is the case with railways in many African nations. Concessions are the primary contract between host governments and project companies, and form the contractual basis on which other contracts are entered into.[306] Put another way, concession agreements are the backbone of PPP arrangement and sit in the structure the PPP structure as shown in Figure 16 below.[307]

Figure 16: PPP project structure

[305] Jacques Cook, *supra* Ch. 2 note 93, at 24.
[306] Katharine C. Baragona, *supra* 4 note 123, at 145.
[307] JEFFREY DELMON, *supra* Ch. 1 note 56, at 251.



Source: J. Demon, *Private sector investment in infrastructure* (2009) 251.

Concessions of public infrastructure to private entities have in common the assumption of risks by private entities whose investments will be repaid with tolls (i.e. user charges), government availability payments, shadow tolls or a combination of tolls and subsidies.[308] Concessions are fragile as parties have to address changing political and economic circumstances and complex engineering and financial issues.[309] Modern concessions employ financial models to manage uncertainty and political risks flexibly. In terms of these financial models, the parties regularly update the concession agreement to reflect variations in political and economic parameters and to quantify the impact of these variations on a project company.

[308] Jacques Cook, *supra* Ch. 2 note 93, at 24.
[309] *Id.* at 26.

5.2.4. Contracts and the construction industry

The contractual network of a typical BOT project grows more complex when analysis shifts to the construction contract and the web of contractual relationships that it unravels. Effectively, the construction industry has its own web of contractual relationships, quite apart from those created by a BOT project or a R4I contract. The construction industry is comprised of design services (architects and engineers), construction services (general and subcontractors, skilled and unskilled labor), and consulting services related to the others (including management and training personnel).[310] A large web of contractual relationships regulates the behavior of the different actors in the construction industry, including EPC contracts, employment contracts, consulting contracts.

Where governments have granted concessions, low-interest sovereign loans to concessionaires have substantially contributed to the financing of investments, though the share of the private finance is in many cases well below 50 percent.[311] Concessionaires, the majority in all concessions to date, provide a relatively low proportion of the equity and most plan to finance over 80 percent of their investment with debt.[312]

5.3. R4I contracts and build operate transfer projects

Build-operate-transfer (BOT) projects are not the most common type of infrastructure projects. However, BOT projects mitigate and allocate among the contracting parties the key risks specific to PPP projects.[313] For that reason, BOT projects offer a

[310] HARRY BROADMAN, *supra* Ch. 1 note 51, at 254.
[311] VIVIEN FOSTER & CECILIA BRICEÑO-GARMENDIA EDS., *supra* Ch. 1 note 17, at 238.
[312] *Id.* at 238ff.
[313] JEFFREY DELMON, *supra* Ch. 1 note 56, at 93.

convenient way of comparing the most important issues arising in infrastructure projects with the central features of R4I contracts.

BOT projects are a type of debt finance in which lenders in a large project primarily rely on the revenues of the project for repayment, and the assets and contracts of the project as security.[314] By contrast, R4I contracts can be seen as a form of debt finance in which lenders rely on the revenues of a mining joint venture closely associated with an infrastructure project within the same contractual framework for the payment of infrastructure works. In both cases, the foreign investors or lenders base their decision to invest less on the creditworthiness of the host country or borrowers than on their assets for the grant and repayment of the investment.

From the perspective of the role that the private sector plays in FDI, BOT projects and R4I contracts divide. BOT projects, like project finance in general, normally takes place within the framework of public-private partnerships (PPP), which places private firms at the forefront. The PPP framework is a brainchild of the neoliberal policies that inspire the current international financial architecture, which extols privatization alongside liberalization and stabilization.[315] In contradistinction, R4I contracts employ a state-to-state business model. This strategy signifies a remarkable departure from the neoliberal bias prevalent in classic FDI law and re-instates the state in its central role as the initiator and facilitator of economic development. This state-to-state strategy is of incredible importance given that the involvement of the Chinese state and host states drives the decision of Chinese investors to invest in the Africa as opposed to states with

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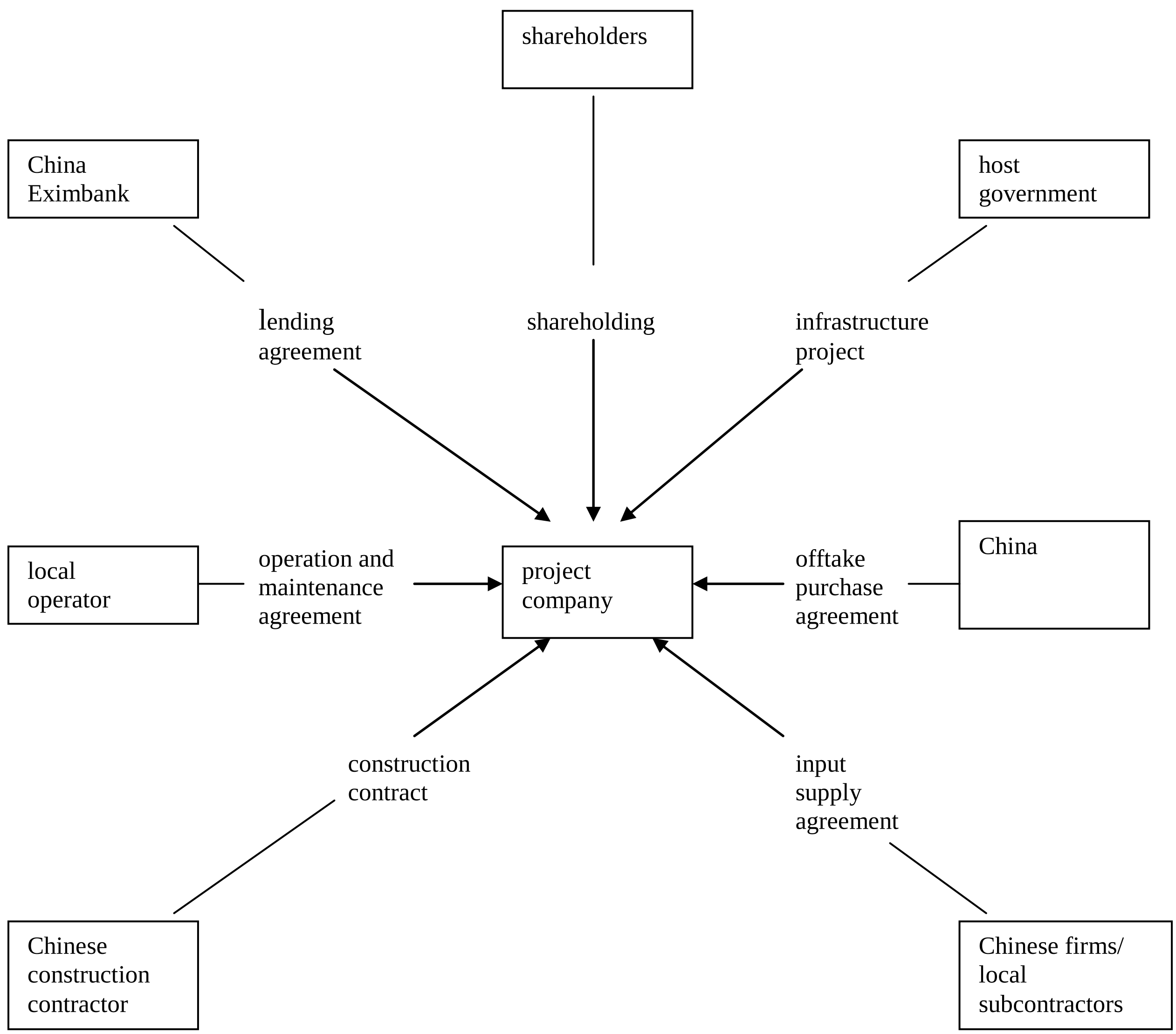
[314] Katharine C. Baragona, *supra* Ch. 4 note 123, at 139.
[315] *See* HOWARD STEIN, BEYOND THE WORLD BANK AGENDA: AN INSTITUTIONAL APPROACH TO DEVELOPMENT 55ff (The University of Chicago Press 2008).

a more attractive investment climate. When the state-to-state business model is applied, the BOT project might look like this:

Figure 17: The contractual structure of a state-to-state BOT project



Source: *Adapted from* J. Demon, *Private sector investment in infrastructure* (2009) 99.

In terms of a traditional concession agreement, the grantor – here a host resource rich country in Africa – would grant to the joint venture or project company a concession of public infrastructure or a number of rights to the infrastructure for a certain period of time. R4I contracts differ from a concession agreement in the sense that R4I contracts do not concede or grant any rights relating to infrastructure to Chinese investors. Instead, R4I contracts provide for infrastructure projects in terms of which a Chinese construction contractor is obliged to erect infrastructure following the priorities set by the host government. Most R4I contracts therefore involve BT (build and transfer immediately) projects and not BOT projects. Effectively, those who operate the infrastructure built after the completion of their construction is often the host state or its subdivisions.

In project finance, lenders could be a private lender such as a commercial bank, an export credit agency, a bilateral or multilateral financial institution, or any combination of these persons. However, with R4I contracts, the lender is most often China Eximbank, a state-owned Chinese bank. Host governments have sometimes granted low-interest sovereign loans to concessionaires in order to make a substantial financial contribution to the construction of infrastructure, but with R4I contracts the exploitation of mineral or/and oil resources finance the construction. In both project finance and R4I contracts, financing of infrastructure projects is highly leveraged in the form of debt. Similarly, in both project finance and R4I contracts, the credit decision of a rational lender is based primarily on estimated cash flow and the collateral value of the project's assets. For instance, in the DRC-China R4I contract, China’s decision to advance loans and build infrastructure was based on the joint venture Sicomines, which constitutes security for the mining rights and titles granted to the consortium of Chinese corporations.[316]

Construction contracts or EPC contracts regulate the behavior of construction contractors during the construction phase. Both traditional infrastructure and R4I contracts entail EPC contracts. In March 2010, for example, a consortium of Chinese construction firms signed an EPC in Botswana for the construction of a hydroelectric dam. China National Electric Equipment Corporation (CNEEC), a Chinese state-owned corporation, and *Shengyang Blower Works Electro-Mechanics Import and Export Co. Ltd.* entered into an EPC with the Botswana Power Corporation (BPC) for the construction of the Morupule B power station in Palapye.[317] Similarly, both traditional infrastructure contracts and R4I contracts also include other related contracts such as input supply and offtake purchase agreements.

In terms of concession agreements a host state retains the ownership of a public infrastructure while a private investor is allowed not only to design and build, but also to operate, maintain and sometimes finance the infrastructure. In terms of R4I contracts, the host state also retains ownership of the public infrastructure however a foreign state (i.e. China) finances and builds the infrastructure. A concession agreement is a contract between host governments and project companies whereas a R4I contract is a contract between one state as host and another state (i.e. China) as source of investment. The foreign investor in a R4I contractual arrangement could be a private corporation or a group of private corporations but it is going to be hard though not impossible for private corporations to sustain such arrangements. Concession

[316] DRC Framework Agreement art. 9.3.
[317] John Churu, *China Gets Lion's Share of Morupule,* BUSINESS DIARY (Bots.), Mar. 15, 2010.

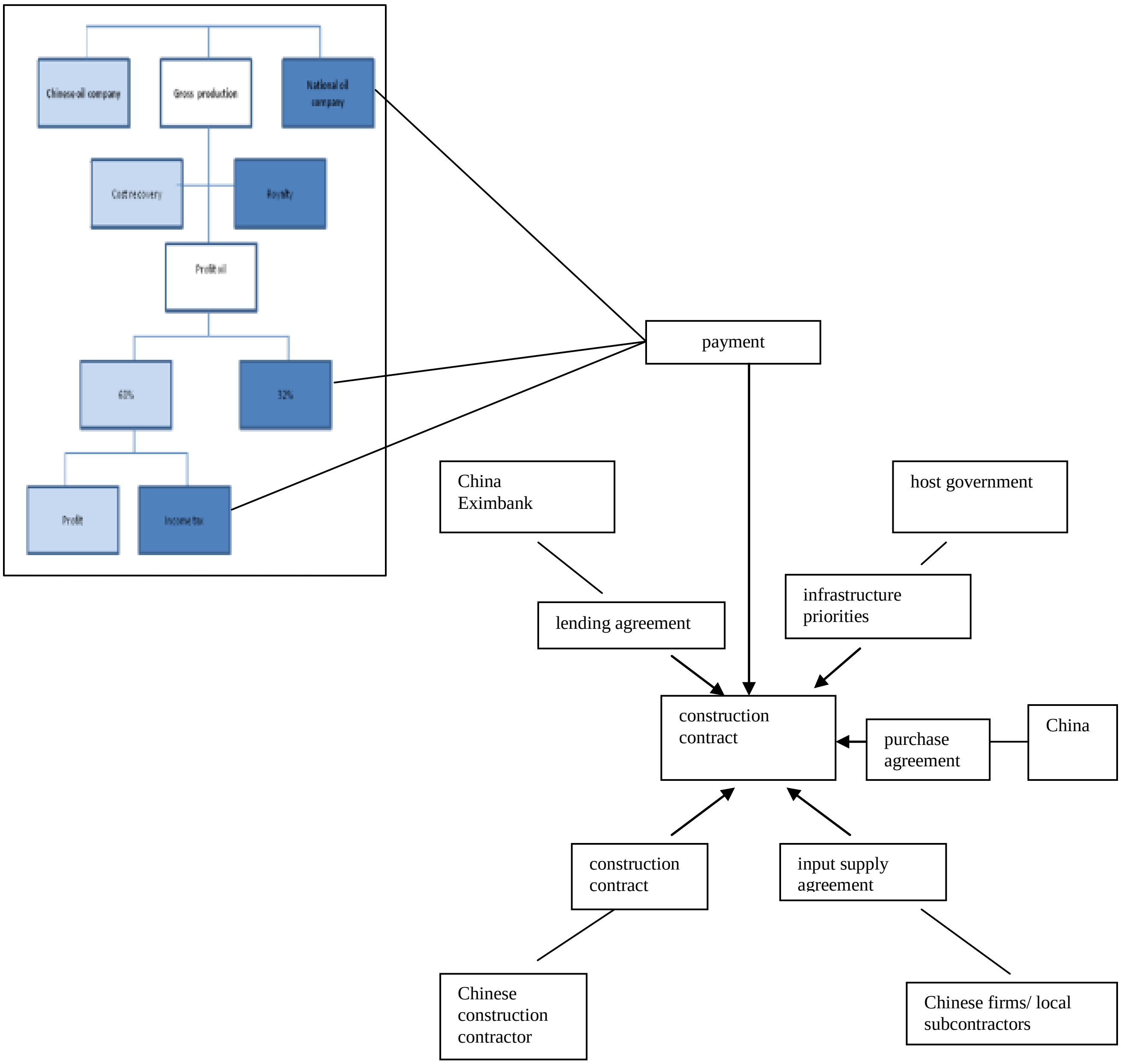
agreements are the contractual basis on which other contracts are concluded whereas in the case of R4I contracts a framework agreement is usually the basis on which other contracts are entered into.

5.4. R4I contracts: A combination of a BT project and a PSA

One of the primary findings of this dissertation is that the structure of R4I contracts elicits a combination of a PSA and a BT project. In view of the above comparison of R4I contracts with PSAs and BOT projects, the general structural organization of R4I contracts appear as follows:

Figure 18: Structural organization of R4I contracts

Mining joint venture



5.5. R4I contracts versus traditional investment contracts

This section compares resource-for-infrastructure investment contracts with traditional investment contracts in generating revenues that the host state could use to finance infrastructure development. This comparison is more illuminating on the nature of R4I contracts when placed in the different fiscal contexts in which R4I contracts and traditional investment contracts evolve.[318]

5.5.1. Conventional fiscal practice

Conventional fiscal practice consists in deriving revenues for the state through taxes. In resource rich countries in Africa, mining is one of the greatest, if not the greatest, contributors to state coffers. In Nigeria, Africa's second largest economy, oil production accounted for 80 percent of the federal budgetary revenues in 2009[319] whereas, in Sudan, oil production accounted for more than 60 percent of the state's total revenues in 2008.[320]

Host states derive revenues from extractive activities often by using production-sharing agreements (PSAs). With PSAs, host states levy taxes, mining royalties and dividends, which are then supposed to be accounted for as revenues in the national budget. Between the time when taxes, royalties and dividends are collected and the time when those revenues are formally accounted for in the host country's budget, considerable amounts are taken from the revenues and diverted to private accounts. This sort of corrupt practices is not uncommon in PIRSA, most of which occupy the lower ranks of the Corruption Perception Index of Transparency International.[321] It is difficult to calculate precisely the level of embezzlement but it is significantly high.

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[318] The author is grateful to Vivien Foster for this suggestion (phone interview with Vivien Foster, *supra* Ch. 4 note 163).
[319] Central Intelligence Agency (CIA), *The World Fact Book: Nigeria,* https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html#Econ (last visited Jan. 3, 2009).
[320] Andrew Heavens, *supra* Ch. 4 note 72.
[321] *See* Transparency International, *supra* Ch. 5 note 209.

As a result of institutionalized corruption, revenues from the extraction of mineral resources are smaller than it would have been had the host state been more transparent. From these smaller revenues, the host state earmarks a specified amount for investment in infrastructure development. Usually, budgetary allocations do not suffice for infrastructure development, amid competing priorities, even in developed countries. In the US, for example, the government routinely sells bonds to raise money from capital markets in order to finance infrastructure development.[322]

However, governments in Africa find it extremely hard to access capital markets because most countries in Africa have a reputation as high-risk FDI destinations. The leading credit rating agencies, such as Fitch, Moody's and Standard & Poor's, do not evaluate the sovereign risk of most countries in Africa. Mining firms operating in Africa are considered more volatile, and foreign investors often factor in an 'Africa discount' on the firms' share price.[323] Furthermore, most African countries cannot source finance from local capital markets because, except for South Africa and Nigeria, most resource rich states in sub-Saharan Africa do not have sufficiently large financial sectors.[324]

In addition, foreign aid and development assistance from multilateral institutions, such as the IMF, the World Bank and the AfDB, are not sizeable enough to make a visible impact on infrastructure development in Africa. Infrastructure projects are very expensive; they therefore necessitate sizeable financial commitments. Yet the chief

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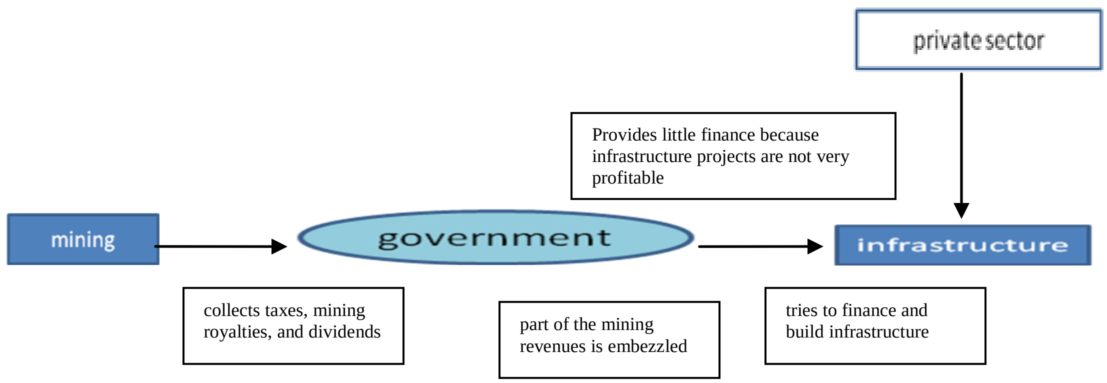
[322] Phone interview with Deborah Bräutigam, *supra* Ch. 3 note 238.
[323] *Canada to Congo: Play Fair with Miners*, Resource Intelligence, July 1, 2010, http://www.resourceintelligence.net/canada-to-congo-play-fair-with-miners/10142 (last visited Nov. 16, 2010)
[324] *See* WORLD ECONOMIC FORUM *ET AL.*, THE AFRICA COMPETITIVENESS REPORT 2009 49ff (World Economic Forum 2009)(presenting the banking sector in Africa's four largest economy, namely South Africa, Nigeria, Algeria and Egypt).

reason for the dearth of infrastructure finance is the fact that the infrastructure sectors are generally not profitable for foreign investors. It follows from all these barriers to infrastructure investments that what host countries in Africa will get from the private sector, foreign states and development agencies in terms of infrastructure finance is insufficient, as shown in the Figure below.

Figure 19: Conventional fiscal practice



5.5.2. Resource-for-infrastructure fiscal practice

R4I contracts require a certain form of fiscal practice. Here, the host state does not collect taxes and utilize them to finance infrastructure with additional funding coming from the private sector, foreign aid or development agencies. Instead, the state and foreign investors identify the taxes, royalties and dividends owed to the state and apply them directly to the financing of infrastructure (see Figure 20 below). The upshot of such a system is that, by bypassing the state as far as mining revenues are concerned, R4I contracts reduce significantly, without nonetheless eradicating, the risks that government officials misappropriate money destined for infrastructure. Stated differently, R4I contracts provide a mechanism that instills discipline and ensures that money earmarked for infrastructure development investments is disbursed only for that purpose and no other purposes. It is a mechanism that Deborah Bräutigam referred to as an 'agency of restraint.'[325]

A second function of R4I contracts relates to efficiency. By applying mining revenues directly to the infrastructure projects, R4I contracts are efficient because the elimination of intermediaries reduces transaction costs, especially when the intermediary is as wasteful as the bureaucracy of a PIRSA. To fully grasp this argument, the concept of 'transaction costs' must be clarified. 'Transaction cost' refers somewhat tautologically to the cost of the transaction itself, yet it is not the cost of an item or a right sold or exchanged through the transaction.[326] It is any costs incurred to make the primary exchange occur and includes the search costs, information costs, and the costs of meetings and negotiations.[327] If these costs exceed the benefits from the exchange, the exchange will be inefficient and will most likely not materialize.

R4I contracts – and this is one side of the dissertation's main argument – exponentially increase the level of infrastructure finance by reducing the costs of transactions. Traditionally, the sponsors of a project will have to incur transaction costs to exploit mining or oil resources. Similar costs would be owed if there were a second, unrelated, project to build an infrastructure project. Combining the revenue generating project and the infrastructure into one transaction, while probably not cutting transaction costs in half, may well reduce the overall transaction costs for both projects and thus create

[325] Deborah Bräutigam, *Africa's Eastern Promise, supra* Ch. 4 note 28.
[326] JEFFREY L. HARRISON, LAW AND ECONOMICS 78 (Thomson/West 2007).
[327] *Id.* at 78-79.

synergies. In addition, earmarking the profits of the mining or oil project ahead of time eliminates the host government's ability to put these funds to other use and thus gives the infrastructure project greater stability.[328]

These costs can be prohibitively high because of the credit risk, payment insecurity and low creditworthiness of most resource rich countries in Africa. The Bui hydroelectric dam project is an example in point. Since Independence in 1957, successive governments in Ghana have made unsuccessful attempts to find foreign investor to fund and build the Bui dam.[329]In other words, the search costs of a proper foreign investor have proved prohibitively high for Ghana with respect to the Bui dam project. This is the outcome with the traditional structure, which consists in using a mining or oil contract and an infrastructure project separately.

It is only by signing a R4I contract in 2007, that is, half a century after Independence, that Ghana has stopped incurring search costs for the Bui dam project. That is the outcome with R4I model, which combines a mining or oil contract and infrastructure projects in one and the same contract. Without R4I contracts, host governments will therefore have to seek out and find a contractor to build the infrastructure project at much greater costs. Simply put, R4I contracts make transactions possible that would not have otherwise materialized because of high transactions costs.

The main argument is that R4I contracts exponentially increase the level of infrastructure finance by joining mining and infrastructure in the same deal. R4I contracts attract more capital needed for infrastructure development by combining

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[328] This argument was developed in a phone interview with Elke Rehbock, *supra* Ch. 3 note 204.
[329] Bui Power Authority, *Background of the Bui Project*, *supra* note 180.

mining infrastructure. Unlike the infrastructure sectors, mining is very lucrative and attracts the bulk of FDI going to Africa. By using mining as bait, host governments draw in more finance, the assumption being that the combination of a non-lucrative project (i.e. infrastructure) with a lucrative one attracts more investors than if the non-lucrative project were offered alone. As a result, most of the R4I contracts represent the largest infrastructure investments that the host countries that concluded them have had since independence. The Bélinga iron ore project in Gabon,[330] the Bui hydroelectric power project in Ghana,[331] the 4.5 credit line from China Eximbank in Angola, the 3 billion US dollars infrastructure project in the DRC, and the mining and infrastructure deal in Guinea, are the largest projects since the independence of the countries where they are being executed.

A third function of R4I contracts is transparency-related. Exchanging natural resources for national infrastructure enables the citizenry to see clearly how the proceeds of mineral or oil exploitation are being used. This form of transparency is of the utmost importance for good governance, and more so in countries reputed to be corrupt. Like DRC President Joseph Kabila once said in a 2007 state of the nation address, with the exchange of copper and cobalt for infrastructure, 'for the first time in [their] history the Congolese people will at last be able to see to what use their cobalt, their nickel, and their copper can be put !'[332] It is not the mere conclusion of a R4I contract that serves transparency; the host government must go beyond official announcements of the general agreement and publish the terms of the contract partially or entirely.

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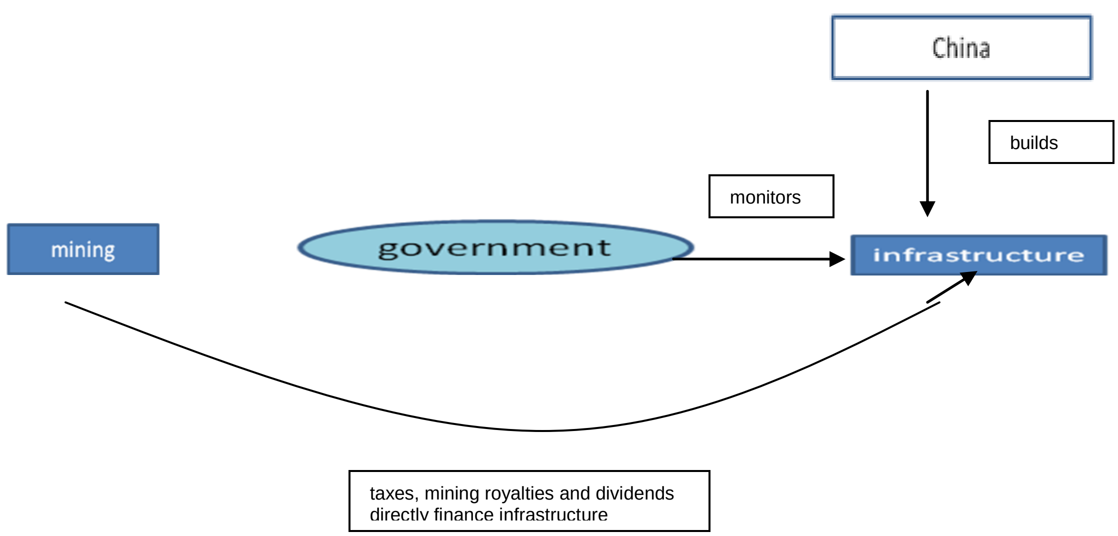
[330] *Belinga Dam, Gabon*, INTERNATIONAL RIVERS, http://www.internationalrivers.org/en/africa/belinga-dam-gabon.

[331] Anthony Yaw Baah *et al.*, *supra* note 179, at 98.

[332] As quoted and translated in Pierre Lumbi Okongo, Minister of Ministry of Infrastructure, Public Works and Reconstruction, Democratic Republic of the Congo, Contribution on the Occasion of the Presentation of the Accords Signed Between the Government of the Democratic Republic of the Congo and the People's Republic of China (May 9, 2008).

Another notable feature of R4I contracts is that it generally involves a state-to-state business model. Where infrastructure projects would normally receive funding from the private sector, R4I contracts substitute the Chinese state for the private sector. This state-to-state model is a far cry from contemporary foreign investment law where the private sector is expected to spearhead investments in infrastructure and mining. The R4I model holds some positive implications for efficiency. In terms of R4I contracts, China or Chinese state-owned corporations carry the total costs of executing infrastructure projects while sharing the costs of monitoring the execution of the projects with host countries. It follows that the success of the infrastructure projects or the quality of the infrastructure built will depend to a large extent on the effectiveness of the monitoring institutions of the host states in shouldering monitoring costs.

Figure 20: Resource-for-infrastructure fiscal practice



This chapter has surveyed, using the chosen criteria (i.e. maximizing benefits and minimizing costs), R4I contracts, with a view to answering the question as to the terms of economic exchanges that optimize the construction of local infrastructure and minimize the risks and costs associated with such investments. For a mutually beneficial economic exchange, it is important to minimize costs and maximize benefits for both foreign investors and host countries. The next chapter lays out the contractual model that is aimed at minimizing costs while maximizing the construction of local infrastructure.

CHAPTER 7

OPTIMIZING CHINA'S INVESTMENTS: THE CONTRACTUAL MODEL

The dissertation has now come full circle. It started with a brief exposition of the gist of its main argument. It then developed its argument by stating its premises and the inferences that engendered it. And in this chapter it goes back to its main argument with a twist by emphasizing economic efficiency perspectives on R4I contracts. To recall, the dissertation's central thesis is that R4I contracts increase infrastructure investments in Africa by far more than traditional investment contracts. This thesis is basically saying that R4I contracts are more efficient. Chapter 4 described how macroeconomic fundamentals dictate the economic exchanges between resource rich African countries and China, and Chapter 3 how these fundamentals drive China's FDI in the mining sectors of Africa in general and R4I contracts in particular. Chapter 5 dealt with the political economy of the countries in Africa hosting Chinese investments and R4I contracts. Chapter 6, the essential part of the dissertation, dissected the terms and conditions of R4I contracts. This part completes the circle by presenting R4I contracts as an efficient model to optimize China's FDI in the mining sectors of Africa.

1. A mutually beneficial relationship with China

Words in any language are for the most part conventional; and legitimate questions could be asked about the practical significance of an analysis of a key word like 'benefit' in this dissertation. In fact, the analysis of the word 'benefit' cannot be done away with. First, the word 'benefit' in English means the same thing and has the same Latin roots as its French equivalent '*bénéfice*'. This equivalence is important in the context of this research because the overwhelming majority of countries in Africa have either English or French as official languages. Most importantly, from the observation that the meaning of words in any language depends on convention, no false inference should be drawn that language is entirely arbitrary. This inference is false because in general, even though the meaning of words in any language is conventional, the *truth* of words in a language is not.[1] This means that the analysis of 'benefit' as a concept and its truth or relation to reality is not dependent on convention. This is the reason why a thorough understanding of R4I contracts as a means to benefit from China's mining FDI to the fullest would not be complete without a firm understanding of what it means and what it is to 'benefit.'

'Benefit' comes from the Latin noun *benefactum*, which means 'good deed.'[2] *Benefactum* in turn comes from the Latin verb *bene facere*, which – one could have guessed – means 'do good.'[3] This definition of benefit ties in well with the economic analysis that informs the R4I contractual model proposed in this dissertation. Seen through the lens of law and economics, contract law must strive to satisfy the utility of

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[1] ROBERT J. FOGELIN & WALTER SINNOTT-ARMSTRONG, UNDERSTANDING ARGUMENTS: AN INTRODUCTION TO INFORMAL LOGIC 5 (Wadsworth 2005).

[2] *See* COMPACT OXFORD ENGLISH DICTIONARY OF CURRENT ENGLISH (3rd ed. 2008), sv 'benefit'.

[3] *Id.*

the contracting parties by reducing the costs of transacting business. In other words, R4I contracts as well as traditional investment contracts must 'do good' to the contracting parties.

A phrase often heard from government officials from both Africa and China, practitioners, academics and the general population, is 'win-win'. A phrase borrowed from business schools, 'win-win' seems to be simple enough so as to be self-explanatory. But in practice different people read the phrase the term differently and, as a corollary, they differ on the issue as to whether China's engagement with Africa is a 'win-win' in general and in specific instances. Though 'win-win' has received different interpretations, the dissertation holds, based on information in Chapter 4, that it is more accurate to read *the realization of economic complementarities between investing state and the host state* into it.

R4I contracts have direct and indirect benefits. Following the methodology adopted in this dissertation, the benefits of R4I contracts are the costs of the infrastructure projects that resource rich host countries are exchanging for mineral resources because 'benefit' and 'cost' are two sides of the same coin. Thus, the total direct benefit of R4I contracts is at least 31,058 billion US dollars. This figure is the addition of the costs of the infrastructure built or to be built in terms of individual R4I contracts.

31,058 billion US dollars is the sum when are added together the costs of the Congo River dam project in Congo-Brazzaville (280 million US dollars), the El Gaili power plant in Sudan (128 million US dollars), the credit line from China Eximbank expended on infrastructure in Angola (4,500 million US dollars), the gas turbine power plant at Papalanto in Nigeria (298 million US dollars), the Souapiti dam project in Guinea

(1,000 million US dollars), the Bélinga iron ore project (790 million US dollars), the Bui dam in Ghana (622 million US dollars), the costs of the Eximbank-funded infrastructure projects in the DRC (6,000 million US dollars), the 2009 resource and infrastructure contract in Guinea (7,000) and the 2010 R4I contract in Ghana (10,400 million US dollars). This sum represents 69 per cent of Africa's total annual spending on infrastructure, which is estimated to be 45 billion US dollars. To put these figures in perspective, it only took 10 R4I contracts in 8 resource rich countries to reach an amount of infrastructure finance that equals roughly three quarters of the continent's total annual spending on infrastructure.

Indirect benefits are most probably greater than the direct benefits of R4I contracts. The Bui hydroelectric power project in Ghana is a good example of indirect benefits. The total cost of the Bui dam is 622 million US dollars, which according to the dissertation's methodology also represents the benefits Ghana gains from the dam. Since Ghana must repay the 562 million US dollars of that amount with cocoa, the 562 million US dollars is also the value of cocoa that cocoa farmers in Ghana will have to export to China, which means that the Sino-Ghanaian R4I contract indirectly provides demand for Ghanaian farming products.

Yet even the above figure does not tell the whole story of how Ghanaians stand to gain from the dam. Before the project was awarded to SinoHydro, French firms assessed that it would cost them around 1.2 billion US dollars to build the Bui dam.[4] The Chinese later came and told the Ghanaian government that they could build the dam at half that price.[5] The Chinese proposal means that Ghana has saved close to 600 million

[4] Phone interview with Kwabena Nyarko Otoo, *supra* Ch. 6 note 53.
[5] *Id.*

US dollars by entering into a R4I contract with China. In addition, the electricity capacity generation of the Bui dam is 400 megawatts. If a monetary value could be placed on each kilowatt generated, the indirect benefits of the Bui dam would be impressively high. The Ghanaian already estimates that the Bui dam could play a crucial role in pushing the country up to middle income status by 2015.[6] Achieving this status is an indirect benefit that is incalculable.

Another indirect benefit is employment for local workers. Unlike mining, infrastructure construction is labor-intensive. During the 2008-2009 global financial crisis, infrastructure development was a key feature of the multibillion US dollars stimulus packages adopted by leading economies like the US and China because major infrastructure projects always create several jobs, mainly for low-skilled workers. African parties to R4I contracts must insist on the employment of local construction workers because of the bigger job-creating impact of great infrastructure projects.

2. Optimizing China's investments

As seen in the previous chapter, R4I contracts are an optimal contractual form that effectively serves not only to procure but also to increase the level of infrastructure finance. This is a function that traditional mining and infrastructure investment contracts do not perform. It is an important function because the severe lack of infrastructure finance has been nagging countries in Africa for decades. Moreover, Chinese practices in Africa have demonstrated that the R4I formula is most efficient as it reduces high transaction costs by bypassing notoriously wasteful or otherwise

[6] Anthony Yaw Baah *et al., supra* Ch. 6 note 179, at 99.

inefficient local bureaucracies, entrusting funds with China Eximbank and by disbursing them directly to Chinese construction contractors in the host country.

Law and economics allows for the modeling of R4I contracts by turning the R4I model into an equation. The gain from reducing the model into an equation is that the equation can be manipulated to produce an irrefutable conclusion.[7] The R4I contractual model holds that if a resource rich country packages an infrastructure project with a mining contract the host country will increase finance for infrastructure development. The model compares a level of infrastructure finance with an undefined function of the combination of an oil/mining contract and an infrastructure project. Where the level of infrastructure finance is l and the function of the combination $g(.)$, the R4I model can be formulated as

$$R4I = l > g(.)$$

The level of infrastructure finance is a function of the way host countries and investors use oil/mining and infrastructure contracts. The theory of this dissertation is that if $l > g(.)$ then the investment contract is optimal. In other words, the level of infrastructure finance reaped by an investment contract is optimal if it is greater than the level of finance that other oil/mining and infrastructure contractual arrangements could have yielded. Since R4I contracts can attract greater finance than other use of oil/mining and infrastructure contracts could, R4I contracts are an optimal investment contract given the respective interests of African host countries and China. The argument is not that the actual level of finance brought in by R4I contracts will *always* be greater than that

[7] On mathematical modeling for jurists applying law and economics methods, *see* NICHOLAS L. GEORGAKOPOULOS, *supra* Ch. 2 note 127, at 144.

brought in by other mining and infrastructure contractual arrangements. Rather, the argument is that R4I contracts will *always* have the *ability* to bring in more infrastructure finance for the benefit of resource rich countries than traditional investment contracts.

Every host state expects to incur some costs c in searching and finding finance for the development of its infrastructure, but it will not accept costs that are too high. However, not incurring a cost at all for infrastructure development will harm the economy of the host state and its people because inadequate infrastructure decreases the economic growth and thereby human welfare. The Infrastructure Consortium for Africa estimates that Africa loses 2 percent of economic growth per capita because of inadequate infrastructure.[8]

The more infrastructure costs imply a smaller cost of inadequate infrastructure on the host economy $e(c)$. The host state incurs costs c in searching and finding an appropriate infrastructure investor and the costs of inadequate infrastructure on the economy $e(c)$ from the failure to find such an investor. The total cost of infrastructure C is therefore

$$C = c + e(c)$$

The interest of a resource rich host state in Africa is to induce the lowest possible total cost of infrastructure C^*, which it does best by employing the R4I formula. By drastically decreasing the costs of searching and finding infrastructure finance, R4I contracts induce the lowest possible total cost of infrastructure.

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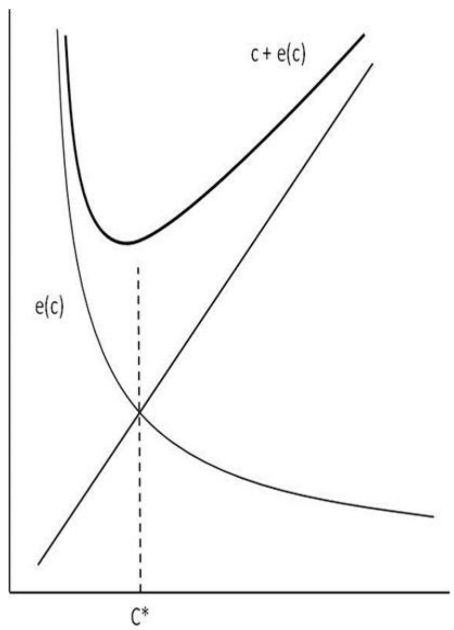
8 Infrastructure Consortium for Africa, Why More and Better Infrastructure, http://www.icafrica.org/en/infrastructure-issues/aims1/ (last visited Nov. 15, 2010)

Figure 21: Optimal level of total infrastructure cost



The cost of inadequate infrastructure on the economy depends inversely on the costs *c* of searching and finding infrastructure finance. If the costs of inadequate infrastructure on the economy and the level of infrastructure finance are presented as functions *e(c)* and *l()*,then the two functions can be joined into the following single argument. The cost of inadequate infrastructure on the economy depends inversely on the level of infrastructure investments, which in turn depends on the costs of finding and searching infrastructure finance, *e(l(c))*.

If badly negotiated, R4I contracts may create negative externalities, misallocate risks, and over- or under-estimate the economic value of the infrastructure built or/and the resources exported. However, all these important issues are matters for contractual design and may, with skillful negotiations, be adequately catered for by the contracting parties, without having to call the basic R4I idea into question. In a nutshell, R4I contracts are a more efficient way of optimizing China's FDI in the mining sectors of Africa than ordinary investment contracts.

'Efficiency' is a cornerstone of the economic analysis of law, contract laws and contracts. The core of the economic efficiency is the absolute necessity to avoid waste.[9] In reality, it is a polysemic term that stands for productive efficiency, allocative efficiency, Pareto efficiency, Kaldor-Hicks efficiency and welfare maximization. Productive efficiency arises where a certain level of output is produced at the lowest possible cost per unit.[10] Consistent with this understanding of efficiency, the dissertation tries to design a R4I contract model that would allow the construction of infrastructure at the lowest possible costs.

Pareto efficiency and Kaldor-Hicks efficiency are more common in the literature on law and economics. Shavell observes that, in the language of economics, a contract is *mutually beneficial* when it is Pareto efficient.[11] Originating from Italian economist Vilfredo Pareto, the concept of 'Pareto superior' refers to an efficient allocation of resources. An allocation is 'Pareto superior' if a trade makes at least one participant better off and no participant worse off.[12] On that view, much of contract law is designed to encourage the formation of contracts under circumstances that promote Pareto superior outcomes.[13] An allocation is 'Pareto optimal' if it is not possible for one to gain by further trade without making the other person worse off. The problem

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[9] *See* Robert Hockett, *Why Paretians Can't Prescribe: Preferences, Principles, and Imperatives in Law and Policy*, 18 CORNELL J. L. & PUB. POL'Y 391, 416 (2009).
[10] JEFFREY L. HARRISON & JULES THEEUWES, *supra* Ch. 1 note 19, at 22.
[11] STEVEN SHAVELL, *supra* Ch. 2 note 53, at 293.
[12] *See* RICHARD A. IPPOLITO, ECONOMICS FOR LAWYERS, *supra* Ch. 4 note 153, at 10ff.
[13] JEFFREY L. HARRISON & JULES THEEUWES, *supra* Ch. 1 note 19, at 27-28.

with Pareto efficiency is that it is almost never possible for one allocation to result in gains without making at least one person worse off.

Because Pareto efficiency is such an exacting and confining standard, it is more usual for cost-benefit analyses to employ the Kaldor-Hicks standard of efficiency. Kaldor-Hicks efficiency or wealth maximization permits involuntary transfers when those gaining by the reallocation could have fully compensated those who lose but it nonetheless does not require compensation.[14] The key is to ensure that resources end up in the possession of those who value them most.[15] This standard is met when infrastructure projects within the framework of R4I contracts are submitted to competitive bidding.[16] The auction of infrastructure projects does not necessarily have to be subjected to a bidding process that involves investors other than those who are parties to the R4I contracts (i.e. Chinese investors), but even the contracting investors should compete among themselves (i.e. Chinese investors among themselves).[17]

Allocative efficiency relates to the allocation of resources to the production of goods and services that are the most valued by society whereas welfare maximization, an alternative way of viewing allocative efficiency, relates to production of goods and services that generated both consumer and producer's surpluses.[18] In both allocative efficiency and welfare maximization, efficiency is achieved when markets are competitive. This result is hard to achieve in the real world because markets are incomplete, behavior is strategic if not irrational, and information is asymmetrical.

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[14] *Id.* at 28-29.
[15] *Id.* at 29.
[16] *See* e.g. DRC framework agreement art. 11.2 (stipulating that for various supplies abroad and the performance of infrastructure contracts the parties to the Sino-Congolese R4I contracts shall give priority to Chinese firms on condition that the prices offered by Chinese firms are competitive).
[17] Phone interview with Vivien Foster, *supra* Ch. 4 note 163.
[18] JEFFREY L. HARRISON & JULES THEEUWES, *supra* Ch. 1 note 19, at 22-26.

Still, the best evidence that R4I contracts are efficient is that they *increase* infrastructure finance, leading to the reasonable inference that it augments social welfare.

Allocative efficiency is achieved on the mining side of R4I contracts because the value of the resources exported is fixed by the spot price of the commodities in international markets. Allocative efficiency can also be achieved on the infrastructure side of R4I contracts if host governments survey their own citizens for approval of the proposed (amounts of) infrastructure projects. The practice of parliament approving the R4I contract signed by the host government, as seen in the case of the DRC-China R4I contract, speaks to this sort of efficiency.

3. Optimizing China's investments: The contractual model

For PIRSA to make the most of China's FDI they need to design a contractual framework or model, rooted in resource-for-infrastructure contracts, that takes full account of the salient features of China's FDI and the objective realities of PIRSA. The R4I contractual model is a *form* of investment contracts. As a form of investment contracts, it is more than just the structure exhibited by its terms. Although the terms of each R4I contract are unique and context-specific, they display abstract yet systematic patterns common to them. They encode something about the internal relations between the terms relating to mining and those relating to infrastructure.

China's general successes in lifting 400 million Chinese out of absolute poverty, coupled with its ability to weather the 2008-2009 financial crisis, rendered China's development model very attractive to many a developing country. In Africa, analysts debate whether Africa should adopt the Chinese model or the so-called Beijing Consensus. Some analysts advocate espousing the Chinese model,[19] some analysts advise that Africa should define development in its own terms,[20] some analysts are of the opinion that the continent should do both.[21] China's African Policy takes the position that 'common development' entails that China and African countries work together in the exploration of the road to sustainable development.[22] However, the probable origins of R4I contracts from China's own experience with trade and investment from Japan in the late 1970s suggest that, contrary to official statements, R4I contracts are a 'Chinese' development model.

Although the model whose broad categories of clauses are presented below suffer from the fact that the terms of most R4I contracts are confidential, available evidence, published contract terms, and publically released R4I contracts (i.e. those signed with the DRC and Guinea) allow this dissertation to design a general R4I model. While building on traditional mining and infrastructure investment contracts, R4I contracts are original in the way they are (1) structured, (2) financed, (3) beneficial and (4) justified or justifiable.

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[19] Martyn J. Davies, *supra* Ch. 3 note 32 (observing that China is exporting its development model to Africa through special economic zones).

[20] Most Chinese commentators and high-ranking officials maintain that China's FDI and aid to Africa is mainly aimed at enabling governments in Africa to attain self-sufficiency by finding their own development brand: *see* KWEKU AMPIAH & SANUSHA NAIDU, *supra* Ch. 1 note 45, at 11; ROBERT I. ROTBERG, *supra* Ch. 3 note 33, at 2 (stating that China is not interested in exporting its development model).

[21] Joshua Eisenman & Joshua Kurlantzick, *supra* Ch. 4 note 35, at 219-64 (arguing that China's engagement with Africa lacks in substance and is driven by resource needs and energy security concerns).

[22] Part III of China's African Policy.

3.1. Structural clauses

Confronted with the actual risks in resource rich states and the potential rewards that their mining sectors offer, China and its African counterparts have molded a unique breed of investment contracts, innovative and competitive. R4I contracts exhibit unique structural clauses, which Edinger & Jansson (2008) describe as ‘barter trade agreement’.[23] While Davies (2008) sums up these structural clauses as a ‘combination of both aid and private sector commerce models’, these clauses are, in their essential form, reminiscent of the contrat d’échange (exchange contract) found in civil law jurisdictions.[24] Frédéric Leclerc (2007) traces sales contracts to exchange contracts, an early ancestor of sale contracts, but exchange contracts differ from sale contracts in that exchange contracts dispense with financial intermediation.[25] Similarly, resource-for-infrastructure contracts do not involve any direct transfer of money to host governments, which considerably reduces the risk that governments will misappropriate investment money.

All the same, descriptions of R4I contracts as barter trade agreements or exchange contracts because they provide for an exchange of things are mistaken. Virtually all contracts consist in an economic exchange such that defining a contract as barter or exchange contracts because it exchanges things is unhelpful. The terms of R4I contracts are so complex and imbedded in investment law that they bear little resemblance, the economic exchange aside, to barters or exchange contracts. Scholars should therefore jettison such descriptions for they distort the terms of R4I contracts and mislead their analysis.

[23] Hannah Edinger & Johanna Jansson, *supra* Ch. 1 note 25, at p.8.
[24] *See* FRÉDÉRIC LECLERC, *supra* Ch. 1 note 26, at 188.
[25] *Id*.

The basic structure of R4I contracts is an innovative combination of mining or oil contract and an infrastructure project, as shown in the Figure 12 in Chapter 6.

Energy security and natural resources are the focus of the R4I structure. In that respect, the focus of these Sino-African economic exchanges does not depart from practices of traditional investors but it departs from those practices in the way natural resources are used for the mutual benefit of African countries and China. Another departure from investment tradition is the emphasis on physical infrastructure, which is also at the heart of the R4I structure. South-South and Chinese investments are distinguishable in the sense that they prioritize infrastructure building.[26] In so doing, they also concentrate on PIRSA, post-conflict countries and LDCs by encouraging the reconstruction of physical infrastructure in those nations and by covering a vaster realm of economic sectors beyond natural resources.

R4I contracts give host states a leading role in mining and infrastructure investments. Much of the advantages of R4I contracts are attributable to the state-to-state business model that they brandish. Classic FDI law is premised upon a tripartite relationship between a home state, a host state and a private foreign investor. R4I contracts generally substitute the home state for the private foreign investor. This state-to-state model manifests itself by the presence of several Chinese state-owned corporations in the host countries in Africa. The involvement of the Chinese state and host states translates a re-evaluation of risks and investment climates in Africa, which is why more and more Chinese investors see the continent optimistically as a place of opportunity despite the real credit risks. R4I structures are intended to shift the focus away from the

[26] Provisions on physical infrastructure, *see* Marrakech Framework ¶ 9.

credit strengths of the host country towards the credit of the revenue generating project exploiting the resources of the host country.[27]

3.2. Financial clauses

The originality of the R4I contracts is not only structural. Chinese finance in general offer to developing countries an alternative and richer source of development finance. China's finance differs in size, scale, scope from those of international financial institutions like the World Bank.[28] The financial arrangements woven through R4I contracts have attracted the most attention because they are substantial and contributing to bridging Africa's vast infrastructure deficit.[29] In the same way, such use of finance by Chinese investors should come as no surprise as Chinese aid is, as a matter of policy, a means to greater Chinese FDI. The purpose of the absence of aid conditionalities is to enable self-development in the host countries in Africa.

China's finance allows poor countries with very limited access to capital markets to obtain infrastructure investments. In that sense, R4I contracts are more suitable to the financial circumstances of most African countries as capital-scarcity is the overarching feature of low-income countries.[30] By exchanging resources for infrastructure, R4I contracts turn a country's geological potential into financial capacity and 'monetize' precious metals and strategic minerals. They convert natural capital into physical capital.[31]

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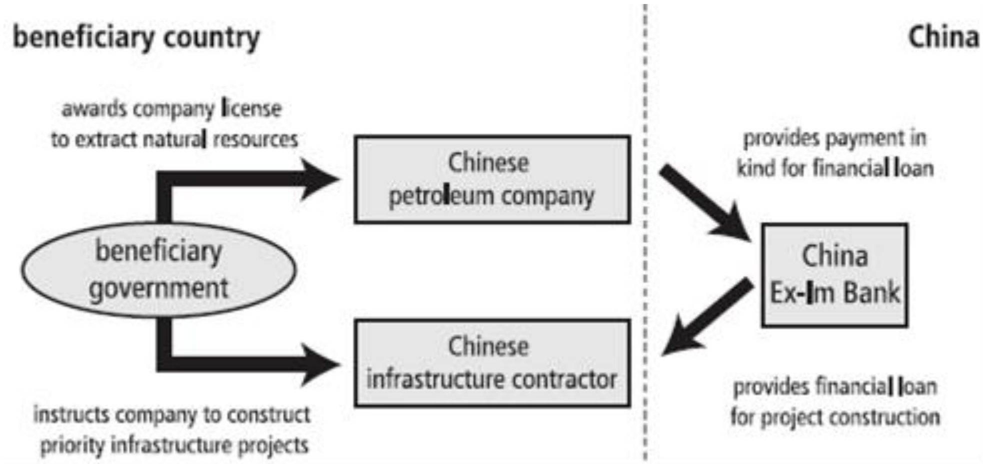
[27] Phone interview with Elke Rehbock, *supra* Ch. 3 note 204.
[28] Telephone Interview with Johanna L. Jansson, Former Senior Analyst, Centre for Chinese Studies, University of Stellenbosch (Dec. 17, 2009).
[29] VIVIEN FOSTER ET AL., *supra* Ch. 1 note 23, at 2.
[30] *See* Glenn Gottselig, *Still the Bottom Billion: Glenn Gottselig Interviews Oxford Economist Paul Collier*, FIN. & DEV., Jun. 2009, at 4.
[31] Phone interview with Vivien Foster, *supra* Ch. 4 note 163.

Figure 22: Financial terms of R4I contracts



Source: V Foster *et al.*, *Building bridges: China's growing role as infrastructure financier in Africa* (2009) 56.

The World Bank report *Building Bridges* states that the financial terms of R4I contracts are not novel or unique in the respect they resemble a long tradition of resource-based dealings in the oil industry.[32] However, it is evident, from the sources that they rely on to back up that statement,[33] that the World Bank report lumps together (1) financial obligations, repayment of which is secured by natural resources, and (2) exchanges of natural resources for infrastructure investments. Telling transactions secured by collateral from barter-like exchanges is crucial because, unlike secured transactions, barter agreements do not in theory increase a country's debt burden.[34] The significance of distinguishing between secured transactions and barter-like transactions is therefore not overshot, notably because of recurrent debates on Chinese finance risking plunging African nations into another vicious debt trap.

[32] VIVIEN FOSTER *ET AL.*, *supra* Ch. 1 note 23, at 42.
[33] I.e. DANIEL JOHNSTON, INTERNATIONAL PETROLEUM FISCAL SYSTEMS AND PRODUCTION-SHARING CONTRACTS (PennWell Publishing Co. 1994); HUMAN RIGHTS WATCH, WORLD REPORT 2001 (Human Rights Watch 2001).
[34] Amanda J. Perry, *supra* Ch. 6 note 20, at 8.

3.3. Social clauses

Most importantly, Alden and others (2008) note that a 'new "social clause" has come into Chinese investment in Africa,' [35] referring to Chinese construction and rehabilitation of social infrastructure in Africa. Though traditional investment contracts provide for a bundle of socio-economic benefits (like employment; increased overall domestic demand; state revenues; personal income; productive efficiency;[36] transfer of technology, labor and managerial skills; and overseas market networks),[37] China has added 'social clauses', that is clauses on such social infrastructure as hospitals, health centers, housing, universities and institutes, to its investment contracts.

The 'social clauses' of R4I contracts connects the obligations of African states to realize socio-economic rights and infrastructure investments. The connection flows from the decisions of the African Commission on Human and Peoples' Rights in *Purohit and Moore v. The Gambia* and *SERAC and Another v. Nigeria*. The Commission declared that the obligation to *promote* requires the state to ensure individuals exercise their rights by *inter alia* 'building infrastructure' [38] and that 'infrastructure and resources…facilitate the full enjoyment' of socio-economic rights.[39] It went on to rule that the obligation to *fulfill* human rights is 'very much intertwined with the duty to promote.'[40] It therefore follows that building infrastructure promotes socio-economic rights and, as such, it is intimately bound to the fulfillment of human rights.

[35] CHRIS ALDEN *ET AL.*, *supra* Ch. 1 note 11, at 23.
[36] Milton Iyoha, *Foreign Direct Investment, Macroeconomic Policy, Environment and Economic Growth: The African Experience*, AFR. NOTES, Spring 2009 3.
[37] JAMES C. BAKER, *supra* Ch. 2 note 129.
[38] *SERAC* ¶ 46.
[39] *Purohit and Moore* ¶ 46.
[40] *SERAC* ¶ 47.

Host states and foreign investors must minimize the environmental impacts of mining activities and the construction of hydroelectric power dams to safeguard the human rights of surrounding populations. Should environmental degradation or pollution occur as a result of the extraction of oil or mineral resources, host states or foreign investors or both will have to internalize the costs of the degradation or pollution. Such internalization of costs would basically mean complying with national and international law obligations with respect to property rights and the environment. Those obligations include environmental impact assessments, adequate provisions for mine closure, reclamation and clean-up, and taking into account local populations' concerns.[41]

3.4. Preambular clauses

Preambular clauses are the principles in key documents signed by African states and China that govern their economic relations. Inferentially, those principles guide the clauses of R4I contracts. Most of these principles nestle in the South-South cooperation discourse.[42] South-South cooperation historically emerged as a reaction to colonialism, neo-colonialism, economic domination by Western powers, and underdevelopment. It insists on equality, mutual benefit, co-development, respect for sovereignty and self-determination.[43] Subsumed under self-determination is the principle of economic self-determination.

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[41] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), FOREIGN DIRECT INVESTMENT AND THE ENVIRONMENT: LESSONS FROM THE MINING SECTOR 7 (Organisation for Economic Co-operation and Development 2002).

[42] Uche Ewelukwa, *supra* Ch. 1 note 49, at 516.

[43] Accra Agenda for Action, ¶ 19(d) (encouraging actions on South-South cooperation aims to observe the principle of non-interference in internal affairs, equality among development partners and respect for their independence, national sovereignty, cultural diversity and identity and local content).

5 core documents spell out the legal and policy framework of the flourishing trade and investment relations between China and Africa:[44] The 2000 Beijing Declaration,[45] the 2000 Programme for Cooperation,[46] the Addis Ababa Action Plan,[47] the Declaration of the Beijing Summit,[48] and the 2007-2009 Action Plan.[49] These core documents embody the preambular clauses of R4I contracts. The preeminent policy document is the China Africa Policy, which states that the five guiding principles of China's relations with Africa, namely sincerity, equality, mutual benefit, solidarity and common development.

R4I contracts combine traditional mining contracts and infrastructure projects. In this combination lies one of the sharpest competitive edges of R4I contracts, which is that they produce better distributive outcomes while tackling the resource curse by strengthening the state. R4I contracts achieves wider distribution thanks to its unique way of accomplishing intersectoral complementarities in construction and mining in Africa, thus extending FDI benefits from the mining to the infrastructure sector. R4I contracts have the real effect of expanding infrastructure finance in Africa. Traditional investment contracts like PSAs do not yield the same results because PSAs are confined to hydrocarbons and minerals. R4I contracts are therefore more efficient than traditional investment contracts.

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[44] Uche Ewelukwa, *supra* Ch. 1 note 49, at 523ff.
[45] 2000 Beijing Declaration of the Forum on China-Africa Cooperation, 1st Ministerial Conference.
[46] 2000 Programme for China-Africa Cooperation in Economic and Social Development, Platform for Cooperation.
[47] Forum on China-Africa Cooperation, Forum on China-Africa Cooperation Addis-Ababa Action Plan 2004-2006.
[48] Beijing Summit & Third Ministerial Conference of Forum on China-Africa Cooperation, Beijing, P.R.C., Nov. 4-5, 2006, Declaration of the Beijing Summit of the Forum on China-Africa Cooperation (draft).
[49] Forum on China-Africa Cooperation, Forum on China-Africa Cooperation Beijing Action Plan (2007-2009), November 16, 2006.

CHAPTER 8

CONCLUSION

The cover of Adama Gaye's book *Le Dragon et l'Autruche* (the dragon and the ostrich) forcefully sums up general misgivings about the engagement of China in Africa. In that imagination, China is perceived as the self-assured dragon widely smiling, spitting flames, dumping cheap products in Africa, and drowning the continent in cash and debt. Africa, for its part, too scared to face its overbearing partner decides to bury its head in the sand. It is with this picture in mind that many a critic, mostly in the West, takes the high road and passes scathing judgments on ventures carried out by Chinese investors and traders in Africa.

This dissertation on resource-for-infrastructure (R4I) investment contracts paints a different picture of Africa's dealings with the Asian giant. It does not see China in or into Africa but rather Africans with Chinese. The cover of Ampiah & Naidu's book *Crouching Tiger, Hidden Dragon?* aptly captures these African dealings. This image of Africans as a crouching tiger dealing with Chinese investors and traders is not a caricature. It mirrors what Africans may, with the right policies, derive from the great transformative potential of Chinese investments in Africa. It is with these opportunities in mind that this dissertation set out to propose an investment policy framework for Africans to take the most out of China's investments in the mining sectors of the continent's resource rich soil. Far from being paternalistic, the dissertation argues that the R4I contract model, which crystallizes that investment policy framework, is more beneficial to countries in Africa than traditional investment contracts.

The 21st appears to be the century of unparalleled Chinese trade and investments in Africa. And, in the absence of evidence to the contrary, the 21st century saw the birth of R4I investment contracts in Africa. This new type of investment contracts gives a precise and definite form to the meeting of minds between African and Chinese parties as to their respective priorities. Resource rich countries in Africa use R4I contracts not only to develop their mines but above all to develop their inadequate infrastructure; China uses R4I contracts because it needs raw materials to sustain its industrialization.

The large finance that investment contracts channel have led a host of scholars and experts to inquire into the best ways for resource rich countries in Africa to benefit from trade and investment from China. This dissertation joined the debate by arguing that R4I contracts are a much better way to optimize China's investments in the mining sectors of Africa. To arrive at that conclusion, it asked several questions. Why do African states and China trade natural resources for infrastructure? How do China's African investments in the natural resources sector and in general look like? What are the costs of doing business in African countries richly endowed with natural resources? How do resource for infrastructure contracts bring down these costs and, most important, how do they maximize gains from Chinese investments in the natural resources sector? This chapter concludes the dissertation by reflecting on these core questions.

Why do African countries and their Chinese counterpart exchange hydrocarbons and minerals for roads and bridges? Because Africa needs China to finance its infrastructure development while China needs the raw materials of resource rich nations to strengthen its industrialization. Both African countries and China cannot expect their economies to grow sustainably without attending to their infrastructure deficit and industrialization, respectively, by trading natural resources for infrastructure finance. These underlying macroeconomic conditions are the reason for the trade and the most essential clause of R4I contracts. They also fix the contents and the overall structure of R4I contracts as a creative conjugation of an oil or mining contract and an infrastructure project.

The oil and mining component of R4I contracts is shaped by the natural resource sectors of Africa and the dynamics of commodities markets. With its abundant natural resources, Africa is a very wealthy continent, which is why the oil and mining component of R4I contracts reproduces the terms of production sharing agreements (PSA), the most common type of oil and mining investment contract. Furthermore, the instability of markets for commodity markets prompts the parties to R4I contracts to opt for a price of commodity exports that tracks the market price.

The infrastructure component of R4I contracts tries to respond to the enormous infrastructure needs in the host countries. R4I contracts match the size of the finance that it makes available for infrastructure development to the large amount of investments that host countries receive in their mining sectors. This is a clever move in view of the fact that in comparison African countries in general do not enjoy as much foreign direct investment in infrastructure. This is also, together with the notable presence of Chinese state-owned construction firms, one of the terms that thrust themselves into attention as unique in the infrastructure component of R4I contracts. The infrastructure sub-contractual arrangements are far less original as they use extensively the contract models found in public-private partnerships (PPP), mostly turnkey projects.

The efficacy of the R4I contract model goes beyond the interests of the contracting parties as it equally serves as a framework to analyze and predict the behavior of South-South contracting parties. As an analytical tool, the R4I contract model breaks down South-South investment into its constitutive elements, many of which appear in R4I contracts. The model places R4I contracts within the general context of South-South cooperation, stressing its investment aspects. The key elements of China's FDI in Africa and the guiding principles of South-South cooperation are equality, co-development, resource extraction, infrastructure, state-to-state business model, joint ventures, cooperation, and summit diplomacy.

Equality and co-development merit special treatment. These two elements are crucial because of their close connection to the 'win-win' approach or the mutually beneficial relationship that, African and Chinese leaders say, defines their exchanges. R4I contracts are the essence of the 'win-win' approach because, through them, African and Chinese parties mutually benefit by satisfying their macroeconomic interests in signing R4I contracts. The R4I model thus provides a useful tool for analyzing Sino-African economic relations as well as South-South cooperation.

As a predictive framework, the R4I contract model foresees that South-South economic exchanges will consist in increased exports of hydrocarbons and minerals to emerging countries and more finance streaming in for the construction of infrastructure in various sectors of the host economies in Africa. In that sense, the high-level official delegations from Ghana and South Africa, headed by their respective presidents, that travelled in

2010 to China to transact business and several agreements on infrastructure development was predictable. The R4I model predicts that African parties and their partners will enter into R4I contracts because resource rich African countries are in dire need of infrastructure and, for the partners, because industrialization demands raw materials.

The next important question is: What are the costs of doing business in the African countries cursed by their abundant natural resources and, more important, how do FDI law and R4I contracts mitigate these costs? From the outset, it must be said that the resource-cost causal relationship is mediated by several third variables, hinting that the proponents of the resource curse have left many intervening factors out of the picture. The resource curse thesis is not entirely reliable. It indicates the risks of incurring high transaction costs more than it predicts those risks and costs.

Having said that, both host countries in Africa and foreign investors suffer high transaction costs, which can be traced to insufficient transparency and capacity constraints, for instance the lack of infrastructure. The risks for host countries include unsustainable debt, corruption, badly negotiated R4I contracts, pollution, environmental degradation, labor relation issues, and low-quality infrastructure. For foreign investors, the most substantial risks are political, like expropriation, contract breaches and civil unrest. Both FDI law and R4I contracts are mechanism to allocate and mitigate these costs and risks. FDI law provides an external mechanism that creates a credible commitment by creating an institution that imposes penalties on the host states from breaking the promises they made to foreign investors.

R4I contracts are also a mechanism to keep risks and costs at low levels. Bypassing the bureaucracy of the host state by setting off the taxes, royalties and dividends due to the state against infrastructure loans and costs is a way for R4I contracts to maintain the risk and costs of wastage and embezzlement at a low level. In addition, R4I contracts induce the lowest possible total cost of infrastructure by radically reducing the time that it takes to search and find suitable infrastructure financier. The longer it takes to find a financier and finance the greater the negative incidence of inadequate infrastructure on the economy and, in the end, the welfare of citizens. Those are the real costs of infrastructure.

The theory of this dissertation is that if a host country in Africa bundles a mining contract and infrastructure project it will attract more infrastructure finance than other contractual arrangements could have brought in. The lucrative nature of mining lures legions of foreign investors. Thus, by using the lucrative mining sector as bait, R4I contracts also lure investors into financing its infrastructure development. This is exactly how R4I contracts maximize the benefits of China's investments while minimizing costs and risks.

Noticing the significant transformative and developmental potential of R4I contracts requires that one first be able to tell them apart from other contracts. The very few scholars (such as Deborah Bräutigam and Alex Vines) who attempted to study these contracts, though unsystematically, have for the most part failed to notice them or their originality. They mistook them for barter agreements, collateral arrangements or simply loans, or contractual phenomena that remotely or otherwise involve mining and infrastructure. Unsurprisingly, they situate the origins of R4I contracts at a time as old as those other contracts.

The researchers who tried to understand R4I contracts did not notice them because they were wearing the wrong lenses. None of them used a contract or contract law approach. As a consequence, Alex Vines, for example, confused 'oil-for-infrastructure' deals in Nigeria with pre-contractual documents (i.e. a memorandum of agreement, a right of first refusal) and a licensing round, all combined. He also concluded that the key weakness of these arrangements was that there was no legally binding mechanism tying oil licenses to infrastructure, implying that the so-called 'oil-for-infrastructure' contract had never been formed in the first place. These shortcomings result from the absence of a contract or contract law approach to the literature on the investments of emerging countries in Africa. Virtually every foreign investment entry is accomplished through a contract;[1] the absence of a contract or contract law approach to the dealings of African countries with China is therefore startling.

This dissertation has introduced a contractual approach in the scholarship on China's FDI in the oil and mining sectors of Africa. It is an approach that examines and interprets investment contracts or contractual relationships in a manner justifiable in terms of a contract theory. However, this dissertation makes no pretense to be the last word on R4I contracts, if only because R4I contracts have arisen of late. On the contrary, it is only opening the debate by proposing R4I contracts as a model for optimizing China's mining FDI and, by way of a keynote address, identifying the areas of further research. Future studies will certainly enrich the debate and, perhaps, close it.

[1] M. SORNARAJAH, *supra* Ch. 1 note 70, at 277.

APPENDIX

RESOURCE FOR INFRASTRUCTURE CONTRACTUAL MODEL

As part of my doctoral research, I have to design a resource-for-infrastructure (R4I) investment contract model. The recent emergence of this investment contract type means that no secondary sources of information have been solely devoted to R4I contracts. The lack of information on these contracts prompted me to interview experts in various fields. I have designed the R4I contract model below and added an analysis/commentary to the salient clauses.

The analysis/commentary of this (R4I) contract model is enclosed in boxes and does not form part of the terms of R4I contracts. This model was built on the basis of available evidence of the terms of existing R4I contracts, especially the Democratic Republic of the Congo (DRC)-China R4I contract and the Angola-China R4I contract. It aims to be an optimal form of the resource-for-infrastructure contracts.

– Dunia P. Zongwe

FRAMEWORK AGREEMENT

BETWEEN

THE REPUBLIC OF _________

AND

THE CONSORTIUM OF CHINESE CORPORATIONS:

____

____

____

ON

THE DEVELOPMENT OF A MINING PROJECT AND AN

INFRASTRUCTURE PROJECT IN THE REPUBLIC OF _________

201___

Table of Contents

Between

The Republic of _________, represented for the purposes of the present Agreement by

Ms./Mrs./Mr. _________, Minister responsible for infrastructure,

Owing to the special nature of the R4I contract as a combination of an infrastructure contract and a production sharing agreement (PSA), the representative of the African Party may be the Minister responsible for mines/hydrocarbons, the Minister responsible for infrastructure, or the Prime Minister. However, it is preferable that the representative be the Prime Minister in order to overcome potential legal restrictions concerning the ministers who may sign government contracts and bind the African Party. For example, analysts have questioned the validity of the signature of the Minister of Infrastructure on the R4I contract between the Democratic Republic of the Congo (DRC) and China because the mining laws required that the Minister of Mines, and not the Minister of Infrastructure, sign any agreement to cede mining rights.[1] This situation shows that some legal systems do not accommodate – as they have never anticipated – the advent of the new type of investment contracts that R4I contracts represent. The way around these situations is for the African Party to be represented by its Prime Minister. Representation by the Prime Minister would be a recognition that the R4I contract in question is neither a mining/oil contract nor an infrastructure contract but a combination of both so that potential legal restrictions on the ministers who may sign government contracts and bind the African Party do not apply.

Hereinafter referred to as _________ [African Party]

The African Party is always a resource rich country. R4I contracts consist in the exchange of natural resources for national infrastructure; and those contracts are not possible in a resource-poor country. Of the 53 countries constituting the African continent, more than half of the countries (i.e. at least 30) are resource rich, namely Algeria, Angola, Botswana, Cameroon, Chad, the DRC, the Republic of Congo (Congo-Brazzaville), Côte d'Ivoire, Egypt, Equatorial Guinea, Gabon, Ghana, Guinea, Liberia, Libya, Mali, Mauritania, Morocco, Namibia, Niger, Nigeria, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe. Any of these resource rich countries can in principle be a party to a R4I contract with China.

and

_________ [Chinese Corporation No. 1], represented for the purposes of the present Agreement by its _________ [Officer/Director of Chinese Corporation No. 1], Ms./Mrs./Mr. _________, its legal representative;

[1] Interview with Jean Paul Kimbulu Kandolo, Chief Technical Advisor in Human Rights and Governance at the United Nations Development Programme (UNDP) in Togo (Jan. 23, 2010); phone interview with Anida Yupari Aguado, Graduate Institute in Geneva (Apr. 17, 2010).

_________ [Chinese Corporation No. 2], represented for the purposes of the present Agreement by its _________ [Officer/Director of Chinese Corporation No. 1], Ms./Mrs./Mr. _________, its legal representative;

_________ [Chinese Corporation No. 3], represented for the purposes of the present Agreement by its _________ [Officer/Director of Chinese Corporation No. 1], Ms./Mrs./Mr. _________, its legal representative;

hereinafter referred to as _________ [Chinese Consortium].

> The corporations making up a consortium in a R4I contract are often Chinese state-owned corporations. The presence of state-owned corporations from China facilitates the necessary high level of coordination between the corporations in the mining project with those operating in the infrastructure project. Such level of coordination is required for the success of R4I contracts. The presence of the Chinese state, through its corporations, and the host state also infuses R4I contracts with some public interest in the pursuit of development objectives over and above the purely business motives of the Parties.

The African Party and the Chinese Consortium are hereinafter referred to as 'Party' individually and 'Parties' collectively.

WITNESSETH:

> Available evidence shows that R4I contracts do not have this sort of preambles, though they exist in other types of investment contracts, like the mining concession agreement that Liberia signed in January 2009 with a Chinese consortium to develop the Bong iron ore mines in north central Liberia. Thus, even if they are not strictly speaking necessary for R4I contracts, these preambles declare the intention of the parties and provide a good background to investment contracts in general. They can certainly play the same role with R4I contracts. They are not binding but they serve the teleological interpretation of investment contracts.

A. The government of the African Party desires to encourage investments in the infrastructure of the African Party for economic development, and wishes to promote and facilitate the emergence of national companies in connection therewith.

The African Party must attract foreign direct investments (FDI) for the sole purpose of promoting economic development. The comparative advantage of R4I contracts is to allow greater flexibility for development than any other existing type of investment contracts. As a matter of public policy, host governments in Africa should take advantage of foreign direct investments (FDI) in infrastructure to build local capacity in the construction industry so that they do not become constantly dependent on foreign investors for the construction, maintenance and operation of national infrastructure. Part of the solution to achieving that goal is to promote and facilitate the emergence of national companies in the local construction industry.

B. Every natural resource on the surface of the ground or in the soil or sub-soil, rivers, water courses, territorial waters and continental shelf of the African Party is the property of the African Party and all rights related to the exploration for and exploitation of natural resources belong exclusively to the African Party.

With the notable exception of the United States (US), in virtually all legal systems the state is the owner of natural resources. The African Party may wish to re-affirm its permanent sovereignty over natural resources in an investment contract in order to justify its decision to encumber, vindicate, control, use or cede mining rights to foreign investors.

C. The government also desires to encourage the further exploration and development of mineral resources in the African Party, and wishes to promote and facilitate national mining companies in connection therewith.

D. The government further desires to increase, through the implementation of this Framework Agreement, its exports of mineral resources and the competitiveness of its mining sector, to encourage and develop technology transfers, and to facilitate the enhancement of human capital.

This section recounts some FDI benefits brought about by investment contracts, namely integration into the world economy through higher exports, technology transfer, human capital development, competitiveness (hard to measure), and industry development. The African Party should keep these policy choices at the back of its mind as it negotiates the terms of R4I contracts. These policies should also guide the interpretation of R4I contracts to the extent that they reflect the intention of the African Party.

E. On or about _________ [date], representatives of the government of the African Party entered into direct negotiations with representatives of the Corporations composing the Chinese Consortium. On or about _________ [date], the Parties concluded a Memorandum of Understanding and, on or about _________ [date], they signed the present Framework Agreement.

> In apparent defiance of best practices, R4I contracts do not result from the award of contracts through tender but from direct negotiations with foreign investors. Many an analyst has raised alarm at the opacity of the negotiation process and the great risk of corruption and favoritism. These transparency concerns are laudable and understandable; unfortunately most analysts misunderstand the complex nature of R4I contracts and miss the point of an auction, which is what a tender essentially is. First, R4I contracts are not simply the sale of primary commodities; they are also building contracts, which are complex contractual arrangements. Private negotiations are appropriate when a contract is complex, involves the provision of services and the possibility of win-win moves and outcomes.[2] Second, auctions are meant to get for the seller the best value for his or her property *when there are many buyers in the market.* Whereas several foreign investors would line up if a host government in Africa conducted a mining/oil licensing round, it is doubtful whether any foreign investors other than the Chinese state-owned corporations would be willing or able to build national infrastructure in return for minerals/oil. The fact that the number of qualified investors is strictly limited means that the costs of holding an auction would surpass those of direct negotiations with the already known high-value investors. Regarding issues of transparency, the partial or complete publication of the terms of the R4I framework contract, after negotiations and signature, can equally serve the purposes of transparency. The DRC published entirely its R4I framework contract with Chinese state-owned corporations.

NOW, THEREFORE, the Parties hereby agree as follows:

CHAPTER I SUBJECT MATTER

Article 1 Objectives of the Parties

1.1. The Parties recognize and declare that by signing the present Framework Agreement, they set out to achieve the following objectives:

1.1.1. For the African Party, to find financial resources necessary for the realization of national infrastructure projects deemed important and urgent.

1.1.2. For the Chinese Consortium, to invest in mining or hydrocarbons in the territory of the African Party.

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[2] GUHAN SUBRAMANIAN, NEGOTIAUCTIONS: NEW DEALMAKING STRATEGIES FOR A COMPETITIVE MARKETPLACE 47-49 (W.W. Norton & Company, Inc., 2010).

These clauses spell out the intentions of the African Party and the Chinese Consortium; and, as such, they are indispensable tools in the interpretation of R4I contract terms. The clauses also translate the macroeconomic complementarities between Africa and China. Africa has a major infrastructure deficit while China has a globally competitive construction industry; Africa has a wealth of natural resources while China is in need of natural resources to fuel its economy. These macroeconomic complementarities form the underlying structure of R4I contracts. The strategic value of R4I contracts lies in the fulfillment of those Sino-African macroeconomic complementarities.

1.2. In order to realize, to the satisfaction of both of them, the above objectives, the two Parties agree to cooperate as follows:

The following two clauses (i.e. 1.2.1. and 1.2.2.) are the essential terms of the R4I contracts. Essential terms are the terms that define a contract or place it into a specific category, like sale, lease, agency, etc.

1.2.1. The Chinese Consortium undertakes to mobilize and commit finance to the construction of infrastructure in the African Party (hereinafter the 'Infrastructure Project'). The finance will be reimbursed with revenues from the exploitation of minerals or hydrocarbons whose exploitation rights are owned by the national oil or mining corporation of the African Party. The concrete terms of the reimbursement of this finance are defined in Part IV of the present Framework Agreement.

This is the infrastructure leg of R4I contracts. The terms of this part of the agreement closely resemble traditional project finance.

1.2.2. The Chinese Consortium undertakes to mobilize and commit finance necessary to the development of mineral deposits or oil blocks listed in Annex A (hereinafter the 'Mining/Oil Project'). The terms of the reimbursement of this finance are defined in Part IV of the present Framework Agreement.

This is the resource leg of R4I contracts. The terms of this part of the agreement closely resemble traditional mining or oil contracts. However, the terms of R4I contracts are more than the mere sum of project finance and mining/oil contracts. It is the innovative combination of these two types of contracts that constitutes R4I contracts and that brings to host countries more FDI benefits than the two contract types, used separately. R4I contracts increase infrastructure investments exponentially by drastically reducing the cost of capital, especially the prohibitively high costs of seeking an investor willing and able to fund and build the needed infrastructure.[3] For instance, Ghana started incurring search costs for its Bui dam project as far back as 1957, that is, since Ghana became an independent country. 5 of the 8 countries that signed R4I contracts (Gabon, Ghana, Angola, the DRC, and Guinea) enjoyed their single largest infrastructure investments since independence.

1.3. The Mining Project and the Infrastructure Project are hereinafter collectively referred to as the 'Cooperation Project'.

1.4. For the constitution of the 'Mining/Oil Joint Venture' and the realization of the Mining/Oil Project, the African Party designates its national oil or mining corporation referred to in 1.2.1 above.

R4I contracts have involved the participation of national mining/oil corporation in joint ventures with Chinese corporations or consortiums in Angola (i.e. Sonangol) and the DRC (i.e. Gécamines). In Gabon, the government itself is directly in a joint venture with China National Machinery & Equipment Import & Export Corporation (CMEC).

1.5. For the constitution of a mining/oil joint venture and the realization of the Mining Project, the Chinese Corporation No. 1, Chinese Corporation No. 2, Chinese Corporation No. 3, etc. designate _________ [number of] corporations, namely _________, _________, _________, these corporations forming the Consortium.

Article 2 Objectives of the Framework Agreement

The objective of the present Framework Agreement is to coordinate and summarize the common intention of the Parties, to define and specify the Cooperation Project that the Parties propose to realize, the general and particular terms of its realization as well as the rights and obligations of the Parties with respect to this Cooperation Project.

Framework agreements are one of two key legal documents required by Chinese concessional finance, the other being loan agreements. As their name indicates, they frame the agreements between the African Party and its Chinese counterpart. One of their foremost virtues is to evidence the common intention of the Parties and laying bare the overall structure of the parties' agreements.

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[3] This proposition was developed in a phone interview with Elke Rehbock, Associate, Greenberg Traurig (May 3, 2010).

CHAPTER II MINING/OIL PROJECT

Article 3 Terms of cooperation – constitution of the mining/oil joint venture

3.1. The Parties will realize their cooperation through the constitution of a mining/oil joint venture to which the African Party will cede, through the intermediation of its national mining/oil company and the participation the latter, rights on the mineral deposits or oil blocks that are the object of the Mining/Oil Project part of the present Framework Agreement.

Some R4I contracts promote state-to-state partnerships through joint ventures like *La Compagnie Minière de Bélinga* (COMIBEL) in Gabon and *La Sino-Congolaise des Mines* (Sicomines) in the DRC. These partnerships are preferable to mining concessions because they develop national mining/oil corporations. They thus fall within China's win-win philosophy, which favors joint ventures with host countries in Africa, though the law in some countries like the DRC requires that mining investors form joint ventures with Congolese nationals. They also revive the developmental role of host states, with joint ventures acting as vehicles for the finance of infrastructure projects. The revival runs counter to the mining/oil reforms initiated by international financial institutions (IFIs) in many an African country. These reforms consisted in weakening the state as a development agent by urging countries in Africa to privatize mining/oil sectors or remove state monopolies in those sectors.[4]

3.2. The mining/oil joint venture shall be constituted in conformity with the rules and current usages on the constitution of business corporations in the African Party.

3.3. It shall be managed according to the law of business corporations and shall generate profits, part of which shall serve to reimburse mining/oil investments as well as infrastructure investments.

This clause shows that R4I contracts do not entirely dispense with monetary intermediation as it says that the joint venture must generate profits, *part of which must reimburse mining/oil and infrastructure investments.* The Parties will share the remainder of the profits. The part payment allocated to the reimbursement of investments is a set-off and not the absence of financial intermediation, as is the case with barter trade agreements. The latter observation in turn shows that analysts who argue that R4I contracts are barter trade agreements have not noticed the set-off actually taking place in those contracts.

[4] *See* BONNIE CAMPBELL (ED.), MINING IN AFRICA: REGULATION AND DEVELOPMENT 3 (Pluto Press 2009).

3.4. To guarantee that the Chinese Consortium have the means to recover their investments in the Mining/Oil Project and the Infrastructure Project, the Parties fix the capital structure of the mining/oil joint venture as follows: 70% for the Chinese Consortium and 30% for the national mining/oil corporation.

The capital structure in Sicomines is 32% for the DRC and 68% for the Chinese consortium; in COMIBEL it was reportedly 25% for Gabon and 75% for the Chinese consortium, as of December 2007. A great many analysts have criticized the capital structure of these ventures. While critics are right in their concerns, they are asking the wrong questions. They are asking whether the capital structure is unconscionable or unfairly disadvantageous instead of asking whether the profit sharing formula reflects the respective contribution of the parties and creates the right incentives for the parties to apply their best efforts at *a given time during the lifetime of the contract*. In this model, the capital structure is justified by the need to guarantee that the Chinese Consortium recoup the costs that it sank into the mining/oil and infrastructure projects. It is difficult to be too precise as to the appropriate share for foreign investors. It is nonetheless evident that a formula that does not allocate a high share of the revenues to the foreign investors for cost recovery *in the early stages* of resource exploitation will remove the incentives for the investors to commit substantial finance to projects, especially when the political risks and transaction costs are high in the host country, as is the case in several countries in Africa. *After recovering sunk costs*, the capital structure should gradually increase to reflect the new economic position of the contract and to produce the right incentives for the local partner in the joint venture.

Article 4 Cession of rights over mineral deposits/oil blocks

The African Party undertakes that its national mining/oil corporation cede to the mining/oil joint venture, the rights covering the following natural mineral deposits/oil blocks: _________,

_________,

_________,

_________.

The natural resources traded in the existing R4I contracts are oil, bauxite, iron, copper, cobalt and cocoa. This list indicates that R4I contracts not only exchange minerals and hydrocarbons but also agricultural products for national infrastructure.

These deposits/blocks, whose rights the national mining/oil corporation holds under _________ [identification number] as registered in the Mining/Oil Register, are located in the region of _________, in the state/province of _________, in the Republic of _________ [the host country, that is the African Party], in conformity with Annex _________ of the present Framework Agreement.

The value of the mineral deposits or oil blocks, whose mining/oil rights the national mining/oil corporation cedes to the Chinese consortium, is the market value.

Though not explicitly stated in this clause, the R4I contract indexes the price of natural resources to the market price. This is the appropriate price adjustment mechanism. The benefit of indexing lies in the reduction of the discrepancy between the initial contract price and the market price at delivery.

Article 5 Signature bonus and financial assistance for the technical renovation of the national mining/oil corporation

5.1. Within the framework of the Cooperation Project, the Chinese Consortium undertakes to pay a signature bonus of _________ million US dollars to the African Party, on condition that:

Common in the extractive industries, a 'signature bonus' is a payment made in addition to royalties and rent as an incentive for the host country to sign a mining/oil contract.[5] Signature bonuses can be paid to the African Party as a lump sum or in installments, as China does with the R4I contract that it signed with the DRC.

- a feasibility study is approved by the Chinese government, during the approbation of the Mining/Oil Joint Venture Agreement to be concluded between the national mining/oil corporation and the Chinese Consortium;

This is an efficient condition as China bears the information costs.

- an audit carried out by the Chinese Consortium on the legality and validity of the mining/oil rights and that the rights do not disclose any defect, latent or apparent;

This is an efficient condition as China bears the audit costs. The information and audit conditions are not cumbersome for the African Party as China pays their costs.

[5] *See* BLACK'S LAW DICTIONARY (8th ed. 2004), sv 'bonus.'

- the cession of mining/oil rights by the national mining/oil corporation to the Mining/Oil Joint Venture covering natural mining deposits or oil blocks and other valuable mineral resources or hydrocarbons as envisaged by article 4 of the present Framework Agreement have taken place.

The cession of mining/oil rights should also not be time-consuming; the African Party should be able to effect the cession very cheaply.

5.2. The Chinese Consortium further promise to search and put in place a financial assistance on the order of _________ million US dollars, in the form of a loan to the national mining/oil corporation, for the rehabilitation of its physical infrastructure in _________ [location on the territory of the African Party]. For the purchases of equipment, priority shall be given to Chinese firms. Rehabilitation work will be done by subcontractors from the African Party. If resort has to be made to subcontractors from a country other than the African Party, priority shall be given to Chinese firms.

Financial assistance to the African Party is necessary if the latter lacks the physical infrastructure for the exploitation of mineral deposits/oil blocks. The African Party can use this assistance to build, rehabilitate or modernize its mining/oil infrastructure.

This financial assistance will not create any obligations vis-à-vis the cession of mining/oil rights and their enjoyment in favor of the Chinese Consortium. The financial assistance will be put in place after the approbation of the Cooperation Project by the Chinese government. At the request of the national mining/oil corporation, the financing shall be paid in cash or equipment.

Article 6 Prefeasibility and feasibility studies

6.1. The Chinese Consortium will carry out a Prefeasibility Study on the Mining/Oil Project on behalf and the account of the Mining/Oil Joint Venture. The

Prefeasibility Study shall be submitted to the authorized organs of the national mining/oil corporation and the Chinese Consortium for approval.

Geological information is often incomplete, and just as often many a host country in Africa has limited capacity to conduct geological surveys. Since it is vitally important for the Chinese consortium to ascertain if there are sufficient mineral/oil resources for the reimbursement of its mining/oil and infrastructure investments, the consortium needs to carry out feasibility studies. It is thus also a way of minimizing commercial risks. This clause, which appears in the DRC-China R4I contract, is problematic because it assigns to the Chinese consortium the task of conducting a prefeasibility study. As a general proposition, firms engaged as contractors to construct infrastructure works should not conduct prefeasibility studies because a conflict of interests may distort the findings of the studies.[6] Thus, ideally, a third party should carry out the feasibility studies.

6.2. The Mining/Oil Joint Venture will then carry out a Feasibility Study on the Mining/Oil Project whose conclusions will be submitted to the Board of Directors and the General Assembly of the Mining/Oil Joint Venture. The Feasibility Study thus approved shall then be approved by the governments of China and the African Party.

6.3. The Parties agree that Prefeasibility and Feasibility Studies must demonstrate the Mining/Oil Project will be able to generate an internal rate of return (IRR) of at least _________ % for the benefit of the Chinese Consortium.

The internal rate of return (IRR) is the interest rate or discount rate at which foreign investors will recoup the entire cost of their investments over the lifetime of the investment project. The DRC-China R4I contract provided for a 19% IRR.

Article 7 Realization of the Mining/Oil Project

7.1. In order to allow the Mining/Oil Joint Venture to promptly start the reimbursement of investments that it will receive and those to be made in the infrastructure projects, the Parties agree that the African Party and Chinese Consortium must help the Mining/Oil Joint Venture commence commercial production within the time frame set by the Feasibility Study carried out by the

[6] UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (UNCITRAL), LEGAL GUIDE ON DRAWING UP INTERNATIONAL CONTRACTS FOR THE CONSTRUCTION OF INDUSTRIAL WORKS 9 (United Nations 1988).

Mining/Oil Joint Venture. The target for the first year of commercial production is _________ tons/barrels. _________ [further targets for subsequent years].

7.2. The total amount of the mining investments as well as the timetable for this financing are determined by the Feasibility Study.

CHAPTER III INFRASTRUCTURE PROJECT

Article 8 Infrastructure works

The list of infrastructure works to be financed by the Chinese Consortium proposed by the African Party is attached in Annex _________ of the present Framework Agreement.

R4I contracts have provided for numerous types of infrastructure projects, including dams in Congo-Brazzaville (Imboulou), Guinea (Souapiti) and Ghana (Bui); power plants in Sudan (El-Gaili) and Nigeria (Papalanto); iron ore reserve in Gabon (Bélinga), and roads, railways, bridges, training centers, schools, universities, houses, health centers, hospitals, and airports, in Angola and the DRC. A review of the available evidence on R4I contracts elicits two scales of infrastructure projects. Most R4I contracts target infrastructure investments in mega-projects whereas more recent R4I contracts are in reality ambitious plans for the reconstruction of the entire host country (Angola, the DRC, and Guinea). R4I contracts create possibilities for export diversification by building infrastructure in other sectors of the economy. This role of R4I contracts is of the utmost importance because resource rich countries, especially oil and gas exporters, are the least diversified economies in Africa, like Equatorial Guinea, Congo-Brazzaville, Libya, Chad and Angola.[7]

Article 9 Realization of the Infrastructure Project

The Chinese Consortium will mobilize and commit finance to the Infrastructure Project, through the Mining/Oil Joint Venture. The total amount of the finance will be determined by the result of the mining/oil exploitation. The infrastructure project will be executed in two phases.

The Mining/Oil Joint Venture is a vehicle for the financing of infrastructure projects. The total amount of infrastructure finance in a single R4I contract can be very large relative to the size of the host economy:

[7] *See* MCKINSEY GLOBAL INSTITUTE, LIONS ON THE MOVE: THE PROGRESS AND POTENTIAL OF AFRICAN ECONOMIES 5 (McKinsey & Company 2010).

4.5 billion US dollars in Angola in 2004-2007 and 9 billion US dollars in the DRC in 2008 (before the amendment of the DRC-China R4I contract in August 2009). It is a situation that raises fears that the debt thus contracted will not be sustainable as the risk of sovereign debt default grows higher the higher the debt. A simple solution is to avoid specifying the total value of the contract in the R4I contract itself and instead split the total amount of the investments into a series of infrastructure contracts falling under the framework R4I contract and entered into at different points in time over the life of the R4I contract. In this manner, default in one mini-contract will not result in default of the whole R4I contract. This strategy will prevent the high value of the R4I contract debt to ever pose a threat to the solvency of the host country. The Parties may specify the total amount of infrastructure finance in a non-binding memorandum of understanding (MOU) but must refrain from making that specification in a binding R4I contract.

9.1. The infrastructure works of the first phase

The list of the first phase of infrastructure works to be realized, ranked in order of priority, will be proposed and submitted by the African Party to the Chinese Consortium immediately after the signature of the present Agreement so as to allow technical teams of the latter to realize and present to the African Party technical and financial propositions of those works and to plan their execution. The infrastructure works start immediately after the approval of the Feasibility Study by the governments of the African Party and China.

The Parties must prioritize infrastructure works so that the most urgent ones are carried out first. In particular, the African Party must ensure that subcontractors start construction work immediately after signature of the R4I contract and months before the start of resource extraction in order to allow the African Party to detect defects in the infrastructure built and notify the Chinese consortium of the defects and then give it time to rectify them. This remedial action might not avail to the African Party if resource exploitation started before or at the same time as the infrastructure works because, if resource exploitation is completed before the infrastructure works, there would be much less pressure on the consortium to rectify the defects.

9.2. The second phase of infrastructure works

The start as well as the volume of infrastructure works of the second phase shall be determined by mutual consultation of the Parties depending on the profitability of the Mining/Oil Project. The infrastructure works of the second phase shall be reimbursed by the taxes, custom and excise duties owed to the African Party by the Mining/Oil Joint Venture during the third period of exploitation (see article 13), that follows the end of the reimbursement of the first phase of infrastructure works.

9.3. Notwithstanding the provisions of article 9.1 above and after the mining/oil rights envisaged by article 4 of the present Framework Agreement have been ceded to the Mining/Oil Joint Venture and on condition that the Mining/Oil Joint Venture constitute a security interest in the mining/oil rights, the Chinese Consortium will mobilize and commit finance to the implementation of the most urgent infrastructure works and whose requirements for implementation have been met. The finance must be counted in the investments for the first phase of infrastructure works and will be reimbursed by the Mining/Oil Joint Venture in terms of the provisions of Chapter IV of the present Framework Agreement.

This is an essential clause. It states that the Mining/Oil Joint Venture is a collateral and not the natural resources, as much of the literature mistakenly assumes. This clause features the DRC-China R4I contract, which has reportedly duplicated – with necessary adjustments – the Angola-China R4I contract.[8] In actual fact, the common intention of the Parties in R4I contracts indicates that natural resources are a medium of exchange and not security if the exchange fails. However, if a Chinese consortium builds the infrastructure first and receives *payment* of natural resources some time after construction commenced *in installments*, natural resources are collateral before the consortium is in effective control of the resources. This is a necessary inference from the fact that when a buyer buys something and pays for it in installments, the seller is essentially making a loan,[9] with the consequence that the non-simultaneous performance by the parties is akin to a sale on credit.

Article 10 Contract of infrastructure works

Each project of infrastructure works shall be the object of a specific contract between the Contracting Owner, the Mining/Oil Joint Venture, one of the corporations in the Chinese Consortium and/or its affiliates authorized and called upon to carry out those works. The contract will have the following terms:

To leave room for flexibility and experimentation, it is imperative that each infrastructure work be the object of a separate infrastructure contract falling under a framework R4I contract. The alternative, which is to provide for all infrastructure works in one and the same framework R4I contract, will be too rigidly complex and will increase the probabilities of contract renegotiation, disputes over contract terms and litigation down the road. These infrastructure contracts may take on the form of build, own and

[8] *See* Colette Braeckman, *Paul Fortin, PDG de la Gécamines, Défend les Accords avec la Chine*, LE SOIR (Belg.), Feb. 28, 2008.
[9] JEFFREY L. HARRISON & JULES THEEUWES, LAW AND ECONOMICS 208 (W.W. Norton & Company 2008).

transfer (BOT), build, operate, and own (BOO), build, own, operate and transfer (BOOT), build, operate and renew the concession (BOR) projects, among other possible forms. However, build and transfer immediately (BT) or turnkey projects are the standard infrastructure contract form in R4I contracts.

10.1. The borrower of funds for the infrastructure works will be the Mining/Oil Joint Venture and/or the Chinese corporations. The Mining/Oil Joint Venture shall be constituted to realize the Mining/Oil Project and be responsible for the reimbursement of investments in mining/oil and infrastructure.

10.2. The reimbursement of the finance for infrastructure works shall be effected by the Mining/Oil Joint Venture following the provisions of Chapter IV of the present Framework Agreement.

10.3. The guarantee of reimbursement is given by the African Party which undertakes, within the framework of the present Framework Agreement, to grant to the Chinese Consortium additional mining concessions/oil blocks or any other resources and satisfactory means in the event that revenues expected from the Mining/Oil Joint Venture turns out to be insufficient to reimburse the investments in the Mining/Oil Project and Infrastructure Project.

This clause is a sovereign guarantee. Some analysts have argued that this sort of provisions is evidence that in R4I contracts natural resources are collaterals,[10] and in effect collaterals and sovereign guarantees, though legally distinguishable, are structurally comparable from an economic perspective. Sovereign guarantees are government credit enhancement techniques whereby a host government guarantees to the project corporation that, should certain events occur or not occur, it will compensate the project corporation.[11] Collaterals in secured transactions are private credit enhancement techniques whereby a lender takes security against the assets of a borrower in order to protect itself against credit defaults by the borrower. Both sovereign guarantees and collaterals are guarantees and both provide remedies upon the occurrence of the defined events. In R4I contracts, the remedy, with sovereign guarantees, is to increase payment by providing additional natural resources whereas, with collaterals, the remedy would be foreclosure, whereby the lender liquidates the security to satisfy the amount of a loan that it granted in the event of the borrower failing to repay the loan. However, the reason why sovereign guarantees in R4I contracts do not signify that natural resources are collaterals is because those guarantees do not pertain to the natural resources *initially* traded in terms of the contract but to *additional* natural resources other than the initial amount of resources allocated to Chinese investors. Therefore, it is more accurate to say that the natural resources to be initially traded in terms of R4I contracts are not collaterals, but that the natural resources to be added to the initial grant of resources function like collaterals.

[10] Phone interview with Nils Tcheyan, Consultant and Former Director of Strategy and Operations in the Africa Region, World Bank (May 14, 2010).
[11] SCOTT L. HOFFMAN, THE LAW OF BUSINESS OF INTERNATIONAL PROJECT FINANCE 416 (Kluwer Law International 2001).

10.4. The Contracting Owner of the Infrastructure Project within the framework of the present Framework Agreement will be the ministry responsible for infrastructure.

10.5. The Architect of infrastructure works within the framework of the present Framework Agreement will be any person nominated by the Contracting Owner.

10.6. The Entrepreneur will be the Chinese Consortium or its affiliates duly nominated.

10.7. The Mining/Oil Joint Venture will not intervene in the conduct or supervision of infrastructure works. It is however authorized to carry out its operations and financial and accounting procedures, transfers, and to make available the funds destined for infrastructure works. The Mining/Oil Joint Venture will make payments upon request by the Contracting Owner, on the basis of invoices presented by corporations working under the Entrepreneur (construction contractors) and after it has verified conformity in terms of prices.

> To avoid the risk that Chinese subcontractors inflate the costs of infrastructure works, this clause allows the African Party, through its participation in the Mining/Oil Joint Venture, to control the valuation of infrastructure works. With respect to the overall value of the entire infrastructure project, one expert recommended that the African Party must subject the allocation of the infrastructure project to a tender process if it is serious about getting the best value for its natural resources.[12] Another expert observed that subjecting the infrastructure project to tender will most probably make no difference as Chinese bidders often have more competitive prices.[13] However, if and when the Chinese bidders have the most competitive prices, the African Party must encourage the Chinese bidders to compete among themselves.[14]

[12] Phone interview with Vivien Foster, Lead Economist, Sustainable Development Department, Africa Region, World Bank (Jan. 6, 2010).
[13] Phone interview with Deborah Bräutigam, Associate Professor, School of International Service, American University (Jan. 15, 2010).
[14] Phone interview with Vivien Foster, *supra* note 12.

Article 11 Specific provisions concerning the Infrastructure Project

11.1. Given the importance of the volume and cost of infrastructure projects with their character as public works, long amortization periods and the slow accumulation of the state's dividends and, in particular, in order to accelerate infrastructure development and national reconstruction to serve as early as possible socio-economic advancement, the Parties recognize that the financing of infrastructure development by the state's dividends from the exploitation of mineral resources/oil will not be the unique funding option within the framework of the present collaboration between the African Party and China.

> This clause maintains enough flexibility to permit the achievement of the ultimate goal that is socio-economic advancement. Socio-economic advancement is vital for post conflict countries and countries in dire need of infrastructure development or economic diversification. Zimbabwe, Sudan, Chad, the DRC, Guinea, Côte d'Ivoire, Niger, Cameroon, and Congo-Brazzaville are perfect candidates for R4I contracts with nationwide socio-economic advancement objectives (like the Angola-China R4I contract), as opposed to R4I contracts simply involving megaprojects, like the Imboulou dam in Congo-Brazzaville, the El-Gaili power plant in Sudan, or the Papalanto gas turbine power plant in Nigeria.

To that effect and if necessary, the African Party will propose to the Mining/Oil Joint Venture to accept other payment terms of part of the projects for the major infrastructure works with greater volume and cost. Other terms include payment by the Contracting Owner by dint of buyer's credit. In that case, the Chinese Consortium could take all the necessary steps to assist the Contracting Owner or the African Party for the obtention of finance from banking institutions in China with acceptable conditions and, the African Party undertakes to fulfill in due course the formalities and procedures necessary for economic cooperation, the loan agreement and the guarantee in the matter, etc.

> Payment by means of a buyer's credit, coupled with a concessional loan, is the financial structure of the Ghana-China R4I contract. The buyer's credit (298,5 million US dollars) and the concessional loan (263,5 million US dollars) covers 90% of the construction cost of the Bui dam (622 million US dollars) in the Bui National Park in the center-west of Ghana. The African Party should negotiate R4I contract such that Chinese investors cover the full cost of infrastructure works if it foresees that it may encounter some severe challenges in paying its part of the costs or in paying them in due course, though Ghana certainly does not fall into that category of countries.

11.2. The Parties agree that for the realization of investments that they will make in the Mining/Oil Project and the Infrastructure Project, the Chinese Consortium resort to firms from the African Party to the maximum for all supplies and all tasks that they will be able to perform.

Resorting to firms from the African Party is as a policy matter an economically sensible choice as it develops the construction industry of the latter. For mineral or oil value addition and the increased benefit of its citizens, the African must also strive to process minerals and refine its oil locally.

They agree nonetheless that, for supplies from abroad and for tasks that the firms from the African Party will not be able to perform, the Chinese Consortium give priority to the Chinese market on condition that prices offered by Chinese sellers are competitive.

This clause ensures that Chinese financial assistance creates employment opportunities for Chinese subcontractors.

Article 12 Subcontracting

Article 12 of this R4I contract model is inspired by the subcontracting policy that the Angolan government adopted for its R4I contract with China. [15]

12.1. The reinforcement of the role of the business class in the process of national reconstruction is one of the objectives of the African Party. For the purposes of this Article, are '_________' [corporate citizens of the African Party](hereinafter 'national subcontractor') all firms owned by citizens of the African Party, or commercial firms, duly incorporated and with headquarters in the African Party, and in which at least _________ [percentage of shares] percent of the capital is owned by citizens or firms of the African Party.

[15] Resolução No. 21/05, de 12 de Maio de 2005, Diário da República de 22.7.2005. 1 (Angl.).

12.2. In turnkey projects or BOT or any other infrastructure projects that permit or recommend subcontracting, a national subcontractor must be selected. The Chinese company hired for the construction work must transfer to the national subcontrator – progressively and according a program that has a clearly defined objective, implementation and timeframe – scientific knowledge, professional and management techniques, that will allow the full assumption by the national subcontractor and for a period established by agreement the management of the (construction) business.

12.3. To qualify for subcontracting, national subcontractors must satisfy the following requirements cumulatively: Their legal and fiscal situation must be in order; their accounting must be organized; they must possess technical capacity, immanent or acquired through contractual association, for the performance of the responsibilities assumed; they must not be indebted to some state organizations or corporations of a public nature or whose majority shareholder is the state; and they must have been incorporated at least two years before applying for the subcontracting job.

12.4. Where two or more national subcontractors are equally qualified, preference is given to a corporation to whom the African Party is indebted. For the selection of national subcontractors by the competent ministries and sub-national governments, according to whether the projects are central or sub-national, a list of national subcontractors must be established. Subcontracting and the selection of national subcontractors must take place without prejudice to competition among the business corporations operating in and harmonious investment within the African Party.

CHAPTER IV REIMBURSEMENT OF INVESTMENTS

> The concept of 'reimbursement' in R4I contracts is indicative of the fact that Chinese infrastructure finance are loans and that the exchange of natural resources for national infrastructure is not contemporaneous, contemporaneity being arguably a defining characteristic of barter trade agreements. Nevertheless, this indication should not lead to inferences that natural resources are in R4I contracts collaterals because the common intention of the Parties is clearly to utilize natural resources as payment.

Article 13 Reimbursement of investments of the Chinese Consortium

There will be three periods for the reimbursement of the investments of the Cooperation Project:

- The first period, the period of mining/oil reimbursement (First Step),
- The second period, the period of the reimbursement of the first phase of infrastructure works (Second Step),

> Both the Angola-China and the DRC-China R4I contracts divide the infrastructure project in two phases.

- The third period, commercial period (Third Step).

The Mining/Oil Joint Venture will reimburse the investments of the Chinese Consortium in the Mining/Oil Project and the Infrastructure Project as follows:

- During the First Period: The Joint Venture will allocate all its profits to the complete reimbursement of the mining/oil investments, including interest payments, of the Chinese Consortium in the development of the Mining/Oil Project.

> This clause led analysts to believe that R4I contracts are barter trade agreements as the Mining/Oil Joint Venture directly applies all the profits of the African Party to the reimbursement of mining and infrastructure projects. Put another way, the absence of the intermediation of money misled analysts into thinking that R4I contracts are barter agreements. However, as the clause below reveals the African Party, reimburses the investments in most part by a set-off, not by barter. But it is noteworthy that this clause is effective in acting as a restraint on the possible embezzlement of investment money on the part of host government officials. By bypassing the state as far as mining/oil revenues are concerned, R4I contracts ensure discipline and reduce significantly, without nonetheless eradicating, the risks that government officials misappropriate money earmarked for infrastructure development – a mechanism that an expert on China in Africa once referred to as an 'agency of restraint.'[16]

[16] Deborah Bräutigam, *Africa's Eastern Promise: What the West Can Learn from Chinese Investment in Africa*, FOREIGN AFF., Jan. 5, 2010.

- _________ % of the financing of the Mining/Oil Project will be in the form of loans, to be reimbursed without interest. The remaining _________ % will be reimbursed at an annual interest rate of _________ %.
- During the Second Period, the Mining/Oil Joint Venture will allocate _________ % of its profits to the reimbursement of investments of the first phase of infrastructure works and to the payment of their annual interest of LIBOR (six months) +100 BP, it will distribute the remaining _________ % to shareholders, in proportion to their share in the capital structure. The total amount of reimbursement during this period must not exceed 3 billion US dollars in principal.

This clause shows that China uses market rates for its loans but good market rates. It also shows that after allocating a certain (usually a very high) percentage of the profits accruing during the first phase to the reimbursement of the first phase of the infrastructure works, the African Party receives the remaining part of the profits. Parliament, civil society and other stakeholders must at that point closely follow mining/oil revenues to prevent theft and waste.

- During the Third Period, the Mining/Oil Joint Venture will distribute all profits to its shareholders, in proportion to their share in the capital structure.

With this clause, there is absolutely no restraint on the possible misappropriation of taxes, royalties and dividends, which means that the African Party must set up other safeguards, including parliamentary control and audit by civil society and other stakeholders, to intensify scrutiny with a view to ensuring transparency and accountability with regard to mining/oil revenues.

- The second phase of infrastructure works as well as payment of their annual interest of LIBOR (six months) + 100BP will be financed by all taxes, custom and excise duties to which the African Party will be entitled in the Third Period, that is the commercial period.

The possible balance between the actual bank rate and the rate applied to the Mining/Oil Joint Venture will be at the expense of the Chinese Consortium.

PART V UNDERTAKINGS AND GUARANTEES OF THE AFRICAN PARTY

The undertakings of the African Party vis-à-vis the Chinese Consortium are as follows:

Article 14 Guarantees relating to the deposits/blocks and mining/oil rights

14.1. The African Party guarantees that, during the entire period of the Cooperation Project, the mining/oil rights that will be the object of the cession to the Mining/Oil Joint Venture will be free of any defect, hidden or/and apparent, capable of impairing the peaceful enjoyment of the rights. The Chinese Consortium will ensure that it carries out an audit on the legality and validity of the mining/oil rights. The cession will only take place on condition that the abovementioned audit demonstrates that the mining/oil rights are free of any defect hidden and/or apparent. Otherwise, if the existence of one or several defects hidden and/or apparent is proved, the national mining/oil corporation undertakes to remedy the defects without delay. If the defects hidden and/or apparent cannot be corrected, the present Framework Agreement will be rescinded.

> Guarantees are the risk-shifting mechanism *par excellence*. In order to control changes to their risk profiles, lenders such China Eximbank will want to maintain control over the project joint venture's power to change project plans, project contracts, capital expenditure program or debt program without the lenders' consent.[17] Lenders use these representations, guarantees and undertakings as bases to claim damages and as events of defaults, triggering the lenders' decision to suspend drawdown, demand repayment, enforce security, or cancel the contract.[18] Regarding cancellation, irremediable defects go to the root of any contract and should therefore warrant cancellation. Hence the cancellation also provided in this clause.

[17] JEFFREY DELMON, PRIVATE SECTOR INVESTMENT IN INFRASTRUCTURE: PROJECT FINANCE, PPP PROJECTS AND RISK 83 (Kluwer Law International 2009).
[18] *Id.* at 84.

14.2. The African Party guarantees that the deposits/oil blocks, whose rights will be ceded to the Mining/Oil Joint Venture, contain mining/oil reserves mentioned in article 4 of the present Framework Agreement. If verification through the Feasibility Study reveals that reserves are below the reserves indicated in article 4 of the present Framework Agreement, the African Party undertakes to grant new concessions to the Mining/Oil Joint Venture. Infrastructure investment will be suspended until the level of reserves provided for in article 4 of the Agreement is attained.

The risk that this guarantee shifts to the African Party is the probability of insufficient reserves.

14.3. Undertaking relating to the feasibility and profitability of the Mining/Oil Project

14.3.1. If the Prefeasibility Study on the Mining/Oil Project is not accepted by the Chinese Consortium or/and the national mining/oil corporation, the Chinese Consortium will end infrastructure investments. The Parties will meet to find a solution.

14.3.2. If the Feasibility Study is not validated by the Chinese government and the African Party, the Parties will meet to find the measures to take in order to either grant new mining/oil concessions to the Mining/Oil Joint Venture or to adjust the amount of infrastructure investments.

This is the appropriate adjustment mechanism. It indexes the amount of infrastructure works to the amount of mineral/oil resources.

If the African Party brings other mining/oil rights, the Mining/Oil Joint Venture will carry out an audit on the legality and validity of the rights. The Mining/Oil Joint Venture will carry out a Feasibility Study on these new mining/oil concessions.

Infrastructure investment will be suspended until the new Feasibility Study is approved by the governments of China and the African Party.

If, after two grants of new mining/oil concessions, the Feasibility Studies are not approved by the governments of China and the African Party, the present Framework Agreement will be rescinded. The Mining/Oil Joint Venture will be dissolved and liquidated.

14.3.3. If the Feasibility Study proves that the internal rate of return (IRR) of the Chinese Consortium is below _________ %, the African Party undertakes to take all the measures capable of improving the conditions of the cooperation in order to reach the _________ % threshold for the benefit of the Chinese Consortium.

14.3.4. If the Mining/Oil Joint Venture has not reimbursed the investments and the interests of the Mining/Oil Project and the Infrastructure Project within 30 years following its creation, the African Party undertakes to reimburse the balance of the investments and interests by any other means.

This is the lifetime of the R4I contract. It may extend up to 30 years or even a longer period, depending on the terms of the contract.

Article 15 Commercial, fiscal and other advantages granted by the African Party

This article provides a set of incentives, which can be defined as any measurable economic advantage afforded specific corporations or categories of corporations by or at the direction of a host government in order to encourage them to behave in a certain manner.[19] They are instruments that host governments use to attract FDI, to steer it into favored industries or regions, or to influence the character of an FDI, for instance where a certain type of FDI is needed.[20] The overarching rationale for FDI incentives is to correct market failures.

[19] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), INCENTIVES AND FOREIGN DIRECT INVESTMENT 3 (United Nations Publications 1996). [hereinafter UNCTAD, INCENTIVES]

[20] *Id.* at 1.

15.1. General provisions

15.1.1. The African Party grants, within the framework of this Cooperation Project, to the Mining/Oil Joint Venture all the advantages in terms of taxes, custom and excise duties and foreign exchange provided for by legislation and regulations of the African Party as well as the provisions applicable to government contracts to be funded by foreign investments.

15.1.2. In order that the accumulation of dividends on the shares of the African Party accruing from extractive activities of the Mining/Oil Joint Venture reach as soon as possible the level that would allow the payment or reimbursement of infrastructure investments, the African Party agrees that particular provisions relating to government contracts will apply to the Chinese Consortium.

R4I contracts necessitate a special fiscal regime and not simply fiscal exonerations or exemptions because of their particular financial requirements.

15.1.3. The African Party guarantees to the Chinese Consortium and/or the Mining/Oil Joint Venture the free transfer of funds, the holding of accounts in foreign and local currency within and without the territory of the African Party, the security of related operations and the exemption of taxes and bank fees linked to administrative regulation.

The transfer of funds, the holding of accounts in foreign and local currency within and without the host country, exemption of taxes and bank fees are recurrent financial incentives. The common denominator of financial incentives is that they are profit-based attempts to lighten the tax burden of foreign investors.[21]

15.1.4. For the purposes of ensuring the success of its mining/oil exploitation and infrastructure works, the Mining/Oil Joint Venture will be free to choose, without prejudice to article 11.2 of the present Framework Agreement, the supplier of equipment and materials, technology and service, to employ inside

[21] *Id.* at 4.

and outside of the territory of the African Party qualified personnel in conformity with applicable legislation in the African Party.

15.1.5. Within the framework of the present Cooperation Project, the African Party undertakes to facilitate the grant of visas and work permits to expatriate workers of the infrastructure entrepreneur and the Mining/Oil Joint Venture.

The above two clauses (15.1.4. and 15.1.5.) introduce the immigration flexibility needed to address the skill shortages that the infrastructure project may face. This is a welcome introduction but the African Party must approach this question responsibly as employment of local workers is one of the main benefits for the African Party, apart from the infrastructure built. At present, the majority of workers at construction sites are Africans. The African Party must be careful to anticipate and resolve problematic trends observed in some African host countries, like tense labor relations, violations of workers' rights, poor working conditions, and unfair labor practices.[22] Fortunately, when African governments have presented a concerted complaint, Chinese investors have allowed for local labor content or at least offered offsets such as training programs.[23] This Chinese tractability notwithstanding, the African Party must tackle these issues head on if it does not want to see worker agitations negatively impact the ability of construction contractors to meet contract terms and inexorably take the shine out of otherwise commendable infrastructure projects.[24]

15.2. Particular advantages during the first two periods

The African Party grants, during the periods of reimbursement of the mining investment and the first phase of infrastructure works, the following particular advantages:

These exonerations and exemptions must match the infrastructure phases and reimbursement clauses of the R4I contract.

15.2.1. The total exoneration of all taxes, custom and excise duties, royalties, direct or indirect, within borders or import and export taxes, payable in the territory of

[22] *See* ANTHONY YAW BAAH *ET AL.* EDS. CHINESE INVESTMENTS IN AFRICA: A LABOUR PERSPECTIVE (African Labour Research Network, 2009).
[23] CHRIS ALDEN, CHINA IN AFRICA 130 (Zed Books 2007).
[24] Phone interview with Kwabena Nyarko Otoo, Director of Labour Research & Policy Institute in Ghana (Apr. 19, 2010).

the African Party and those linked to the extractive activities and the development of infrastructure.

15.2.2. The exemption from fees and payment relating to the application, grant, transfer and cession of mining/oil rights, prospection and exploitation permits.

15.2.3. The Mining/Oil Joint Venture is exempted from royalty fees linked to mining/oil exploitation.

15.2.4. During the two first periods, all payments of taxes, custom and excise duties, royalties, that would have been paid by the Mining/Oil Joint Venture or the Chinese corporations responsible for infrastructure works, within the framework of the present Framework Agreement, will be considered and accounted for as expenses for infrastructure works.

Article 16 Guarantees by the African Party against political risks

This article is a boilerplate in investment contracts. Foreign investment law holds an arsenal of contractual devices to shield foreign investors from political risks and other types of risks that they run in host countries. The devices are stabilization, choice-of-law clauses, arbitration, damages, waiver of sovereign immunity, waiver of the local remedies exhaustion requirement, currency conversion, profit repatriation, interest rates, *force majeure* clauses, state interest in project, and state-as-party clauses. One chief strategy to shield foreign investors from political risks and other risks in the host country is through internationalization. Internationalization (achieved chiefly through stabilization clauses, choice-of-law clauses and arbitration) requires R4I contracts to go through a process that propels them out of the sphere of the domestic law of host states to a higher orbit composed of a complex blend of private international law, general principles of law and international law.

16.1. The African Party undertakes to maintain security on the sites of the Mining Project and the Infrastructure Project. It also undertakes to resolve in due course all problems related to or caused by riots, public violence, strikes, etc. so that the Mining Project and the Infrastructure Project can be realized in the best conditions.

16.2. Without prejudice to the advantages acquired in the framework of this Framework Agreement, the Mining/Oil Joint Venture and the entrepreneur responsible for infrastructure works will benefit from the advantages granted by all new legal provisions and regulations enacted after the African Party or agreements that the latter will conclude with other investors. Nonetheless, all new legal provisions and regulations bringing disadvantages to the Mining/Oil Joint Venture and the infrastructure entrepreneur will not apply to them.

This clause is a stabilization clause or a guarantee against subsequent changes to the law.

16.3. Within the 12 months that follow the approval of the Cooperation Project by the Chinese government, the African Party undertakes to obtain from its Parliament the adoption of a law to secure the regime for taxes, custom and excise duties, and foreign exchange applicable to the Cooperation Project because of its specificity. If the national Parliament does not adopt the said law, the Chinese Consortium will have the right to decide to realize or rescind the present Agreement.

This clause secures the fiscal regime for the R4I contract. It is a form of guarantee against subsequent changes to the law.

16.4. The African Party undertakes to never, and in no circumstances whatsoever, appropriate, nationalize, nor expropriate, directly or indirectly, the Joint Venture as well as its property.

This clause aims at protecting Chinese investors by prohibiting the African Party from taking or otherwise interfering with the property and property rights of the investors. The problem that may arise with this clause is whether a certain measure by the African Party amount to a 'taking'. Indeed, certain measures by host states may not result in the actual physical taking of property, but may still make investors lose management, use or control or a significant value of their assets.[25]

[25] UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), INTERNATIONAL INVESTMENT AGREEMENTS: KEY ISSUES 1. Vol. 1. (United Nations 2004).

16.5. The African Party undertakes to respect to the _________ [bilateral investment treaty] signed between the Chinese and African Party's governments on _________ [date of signature].

> In FDI law, a contract is not a treaty. Thus, for a consortium of Chinese corporations to defer a dispute with the host country to an international forum for adjudication and settlement, it must make sure that it enters a bilateral investment treaty (BIT) with the host country. It is a potent way for foreign investors to internationalize R4I contracts and guard against political risks.

16.6. In case the Chinese Consortium or its affiliates decide to take up insurance at their own expenses for the Mining/Oil Project, infrastructure investments or any other possible cooperation projects subsequently agreed upon, through specialized agencies such as MIGA (Multilateral Investment Guarantee Agency), against political risks in particular, and if subscription to the insurance schemes requires recognition of the host state, the African Party undertakes to give such recognition on time.

> Even though this clause is about multilateral insurance guarantee agencies, it mentions the possibility of other cooperation projects subsequently agreed upon by the Parties. If a host country is executing or has fully executed a R4I contract with a Chinese consortium, it does not have to sign another R4I contract, should it desire to make use of the same R4I contractual arrangement. It can renegotiate the terms of the terms of the existing or completed R4I contract by linking up new contracts and adding new additional resources to the framework R4I contract.[26] Likewise, the old Mining/Oil Joint Venture under the existing or completed R4I contract can serve yet again as a vehicle for the financing of the new infrastructure projects.

16.7. If the Chinese Consortium and its affiliates, after insurance subscription, receive payment by way of reparation, the African Party must not only recognize the validity of the payment but also to accept the insurer's subrogation for the reimbursement. The insurer's subrogation right shall not exceed the right to reimbursement of the Chinese Consortium or its affiliates.

> This is probably the most effective insurance for a Chinese consortium against political and other risks as it not only shifts those risks to the African Party but it brings international institutions, like the World Bank-affiliated MIGA, into the enforcement equation.

[26] Phone interview with Sanusha Naidu, Research Director of the Emerging Powers in Africa Programme at Fahamu (May 10, 2010).

16.8. The African Party guarantees to the Mining/Oil Joint Venture the security of its mining/oil investments and the reimbursement of infrastructure works to be realized within the framework of the present Framework Agreement, notably in conformity with articles 12 and 13 of the present Framework Agreement.

Article 17 Other undertakings and guarantees

The African Party undertakes to institute, upon signing the present Framework Agreement, a multisectoral committee (Steering and Coordination Committee) responsible for (1) the monitoring of the present Framework Agreement and agreements within the framework of the present Framework Agreement; (2) the facilitation of the realization of the Cooperation Project, especially questions related to transportation, access to water and electricity, etc.; (3) the monitoring of governmental infrastructure works; (4) the interface between the Chinese government, the African Party and the Mining/Oil Joint Venture. This Committee will serve as a one window center able to represent the African Party. Moreover, the Committee will be in charge of all questions and formalities relating to the infrastructure works. The Committee is also in charge of relations and formalities between the Mining/Oil Joint Venture and governmental authorities. The African Party and the Chinese Consortium may later agree to attribute to the Committee further responsibilities. Rules of internal order will be developed as quickly as possible by the Committee in order to ensure the smooth operation of the Cooperation Project.

Some host countries, such as Angola and the DRC, have set up institutions to monitor the infrastructural works provided for in R4I contracts and carried out by Chinese construction companies. The host countries do not have physical control over infrastructure funds but they nevertheless decide where, how much and which types of infrastructure must be built and they monitor the construction process. In the countries where R4I contracts have been signed the institutions implementing infrastructural works are usually directly linked to the presidency of the host country (Angola, the DRC). In addition to signaling their importance for the host country's economy, these direct connections to the presidency signal the highly political nature of R4I contracts. In fact, R4I contracts can be seen more as political deals between the host countries and China than as commercial transactions.[27] In Angola, the government created on July 6, 2004 an office to monitor the infrastructure-related credit line that it obtained from China within the framework of the R4I contract that it signed with China. It created upon publication of a government dispatch (*despacho*) the Office for the Technical Support and Management of the Credit Line with Eximbank of China (*Gabinete de Apoio Técnico à Gestão da Linha de Crédito com Eximbank da China*). In the DRC, upon request by the Minister responsible for Infrastructure, the Congolese President set up on August 26, 2008 two institutions whose primary responsibilities are the monitoring and supervision of the infrastructural works carried out as part of the R4I contract between the DRC and China. Those two main institutions are the Congolese Agency for the Great Works (ACGT, an acronym from its French name *Agence Congolaise des Grands Travaux*) and the Bureau of the Coordination and the Monitoring of the Sino-Congolese Program (BCPSC, from its French name *Bureau de Coordination et du Suivi du Programme Sino-Congolais*). In Ghana, the President enacted on July 31, 2007 the Bui Power Authority Act to establish the Bui Power Authority, which is charged with the development of a hydroelectric power project on the Black Volta River at Bui and any other potential hydroelectric power project on the River. It is a much smaller institution than the Angolan and Congolese monitoring institutions, but it equally underscores the necessity of these institutions for the success of R4I contracts.

PART VI GUARANTEES BY THE CHINESE CONSORTIUM

Article 18 Undertakings and guarantees by the Chinese Consortium

Guarantees in favor of the African Party are inescapable as a R4I contract that would place all the risks on the shoulders of the African Party would be exceedingly burdensome. This article does not tell what will be the consequences should the Chinese consortium breach the guarantees. Presumably, in such circumstances, the African Party will be entitled to damages.

18.1. The Chinese Consortium guarantees and declare that it has the firm intention to commit, in partnership with the African Party or the national mining/oil company, to the realization of the Mining/Oil Project and the Infrastructure Project described in the present Framework Agreement.

18.2. The Chinese Consortium undertakes to mobilize the finance necessary for the realization of the projects mentioned above in conformity with the conditions described in the present Framework Agreement. It undertakes to grant to the Mining/Oil Joint Venture, in the form of a loan to the shareholders, to be reimbursed without interest, 30% of the investments deemed necessary for the

[27] Phone interview with Jeffrey Delmon, Infrastructure Specialist, World Bank (Mar. 1, 2010); phone interview with Markus Weimer, Research Fellow in the Africa Programme at Chatham House (May 24, 2010). Both experts explained that resource-for-infrastructure agreements are not just commercial transactions, they are also political deals.

development of the Joint Venture by the Feasibility Study to be carried out beforehand and for the application of the Mining/Oil Project.

18.3. The Chinese Consortium undertakes to lend to the national mining/oil corporation the funds necessary for its participation in the capital structure of the Mining/Oil Joint Venture and in possible increases of the Joint Venture's capital.

18.4. The Chinese Consortium will specially see to it that the Mining/Oil Joint Venture is capable to effect the prompt reimbursement of the mining/oil investments and governmental infrastructure works. It will ensure, among other objectives, that the Mining/Oil Joint Venture opt for an effective technology, capable of reducing exploitation costs, which must be advantageous comparable to those incurred by firms operating in the same sector.

18.5. The Chinese Consortium, on the strength of its professional, technical and management advantages, undertakes to take all measures necessary to reduce production costs (including distribution costs), economize the financial resources for construction works, ensure the modern conception, the quality, the high profitability, the dependability and the durability of infrastructure works and services through its participation in national reconstruction in the African Party.

The Parties should read into the phrase 'production costs' the costs of environmental degradation and resettlement. In countless instances, resource extraction has polluted or caused the degradation of the environment. In other instances, the construction of infrastructure has displaced residents. In Ghana, relevant legislation tasks the Bui Power Authority with the acquisition of lands and resettlement measures. Subject to article 20 of the Ghanaian Constitution, which provides for the right to property and outlines procedures for expropriation, the President must cause to be acquired lands, which in the opinion of the Authority's Board, may be required to be inundated by the filling of the lake, and for the use of persons being resettled. The Parties should be jointly responsible for internalizing the costs of environmental degradation and resettlements by compensating the persons aggrieved by these negative externalities. Such internalization of costs would basically mean complying with national and international law obligations with respect to property rights and the environment. Therefore, by guaranteeing to take all measures necessary to reduce production costs, the Chinese consortium impliedly guarantees that it will limit the deleterious effects of resource extraction on the environment and of infrastructure construction on the property rights of residents.

18.6. The Chinese Consortium will see to it that the Cooperation Project is approved by the competent Chinese authority within 120 days after the signature of the present Framework Agreement.

PART VII REGULAR CONSULTATION OF THE PARTIES

Article 19 Regularity of consultations

In order to guarantee the smooth execution of the Cooperation Project, representatives of the Chinese Consortium and those of the African Party shall meet each year, during the first semester on the initiative of the most diligent Party. The meeting may take place in Beijing or _________ [the capital city of the African Party]. During the meeting, discussions will focus on the following matters:

- the verification of the execution of the present Framework Agreement,
- the amicable consultation in order to resolve possible disputes arising from the execution of the Cooperation Project,
- the formulation of proposals in order to improve the execution of the Cooperation Project,
- various matters relating to the execution of the Cooperation Project.

> These consultations, together with monitoring institutions, are some of the hallmarks of the state-to-state business model ushered by Chinese investments. Consultations build a relationship of trust between the Parties, a core ingredient in long-term, relational contracts, as is the case with R4I contracts and most investment contracts. Classic FDI law is premised upon a tripartite relationship between a home state, a host state and a private foreign investor. R4I contracts generally substitute the home state for the private foreign investor.

PART VIII FORCE MAJEURE AND DISPUTE RESOLUTION

Article 20 *Force majeure*

19.1. All circumstances of *force majeure* will be appreciated according to the law. *Force majeure* means any act, legal or factual situation, phenomenon or circumstance that is unpredictable, irresistible or beyond the reasonable control of the Party that wishes to avail of this defense.

19.2. In the event of *force majeure*, the aggrieved party must immediately and in writing notify the other party of the situation. In case the situation of *force majeure* lasts for more than 60 days, the Parties should consult each other to find a solution.

19.3. The performance of the parties' obligations will be suspended for as long as *force majeure* lasts.

19.4. The Parties to the present Framework Agreement have agreed that, given the nature of this agreement, expropriation, nationalization, the promulgation of new legislation or the modification of existing legislation in the host country may in no way constitute *force majeure.*

Article 20 Dispute resolution and arbitration

20.1. Any dispute on the interpretation and execution of the present Framework Agreement must be resolved first by amicable discussions between the Parties.

Traditional values in both African and Chinese societies emphasize reconciliation and harmony in the community over adjudication.[28] The Parties to R4I contracts can build on those values to reconcile their divergences of position amicably.

20.2. If the parties fail to settle their dispute within the six months following the amicable discussions, the dispute must, at the request of either Party, be subjected to arbitration under the ICSID (International Centre for the Settlement of Investment Disputes) according to the latter's rules.

[28] WERNER MENSKI, COMPARATIVE LAW IN A GLOBAL CONTEXT: THE LEGAL SYSTEMS OF ASIA AND AFRICA 380ff and 493ff (Cambridge University Press 2006).

Some differences are irreconcilable, even with the noblest of intentions. In those cases, litigation or arbitration may the best solution. More often than not, arbitration is preferable to litigation.

Article 21 Applicable law

The applicable law is the law of the act. In case the applicable law cannot be determined according to the preceding criterion, the parties will – in order to determine the applicable law – refer to criteria commonly utilized in international trade to settle disputes of the same nature.

PART IX FINAL PROVISIONS

Article 22 Domicile and notices

Any notice, directives, requests or any other communication, required or contemplated by virtue of a provision of the present Framework Agreement must be in writing and sent to the following addresses:

FOR THE AFRICAN PARTY

__________ [address]

____

____

FOR THE CHINESE CONSORTIUM

__________ [address]

____

____

Any notice, directives, requests or any other communication will be deemed to have been received on the day of delivery or, in the case of faxes, the working day after the reception of the fax transmission report. Any change of address will be notified to the other party in writing and at least 30 days after the actual change of address.

Article 23 Contradictions

In case the provisions of the contracts concluded in terms of the present Framework Agreement, the Mining/Oil Joint Venture Agreement or the Articles of Incorporation conflict with the provisions of the present Framework Agreement, the provisions of the Framework Agreement must prevail.

Article 24 Amendment

Any amendment to the present Framework Agreement must only take place after and through a contractual amendment duly signed by the Parties.

Article 25 Language

This Framework Agreement is written in English/French/Portuguese and Mandarin Chinese. Both versions of the contract enjoy probative force. In the event of any divergence of interpretation between the two versions, the English/French/Portuguese version must prevail.

> Any one of the following four official languages (English, French, Portuguese and Arabic) is spoken in the overwhelming majority of countries in Africa. It is therefore practical for the R4I contract to be written in both the official language of the African Party and Mandarin Chinese.

Article 26 Annexes

The documents listed below constitute the annexes to the present Framework Agreement and form an integral part of the Agreement. Those documents are:

Annex A: List of mineral deposits/oil blocks ceded to the Mining/Oil Joint Venture

Annex B: Geological description of the mineral deposits/oil blocks

Annex C: List of infrastructure projects

Article 27 Entry into force

The present Framework Agreement will enter into force on the date of its signature.

IN WITNESS WHEREOF, the Parties have signed, in _________ [number of] copies, the present Framework Agreement in Beijing/capital city of African Party, on _________ [date], and each of the two Parties possesses two original copies.

FOR THE AFRICAN PARTY

Mr./Mrs./Ms. _________ [name of Minister]

MINISTER RESPONSIBLE FOR MINES/OIL/INFRASTRUCTURE

___________________________ [signature]

FOR CHINESE CORPORATION No. 1

Mr./Mrs./Ms. _________ [name of Officer/Director of the Corporation]

___________________________ [signature]

FOR CHINESE CORPORATION No. 2

Mr./Mrs./Ms. _________ [name of Officer/Director of the Corporation]

___________________________ [signature]

FOR CHINESE CORPORATION No. 1

Mr./Mrs./Ms. __________ [name of Officer/Director of the Corporation]

______________________________ [signature]

ANNEX A

TO THE FRAMEWORK AGREEMENT

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